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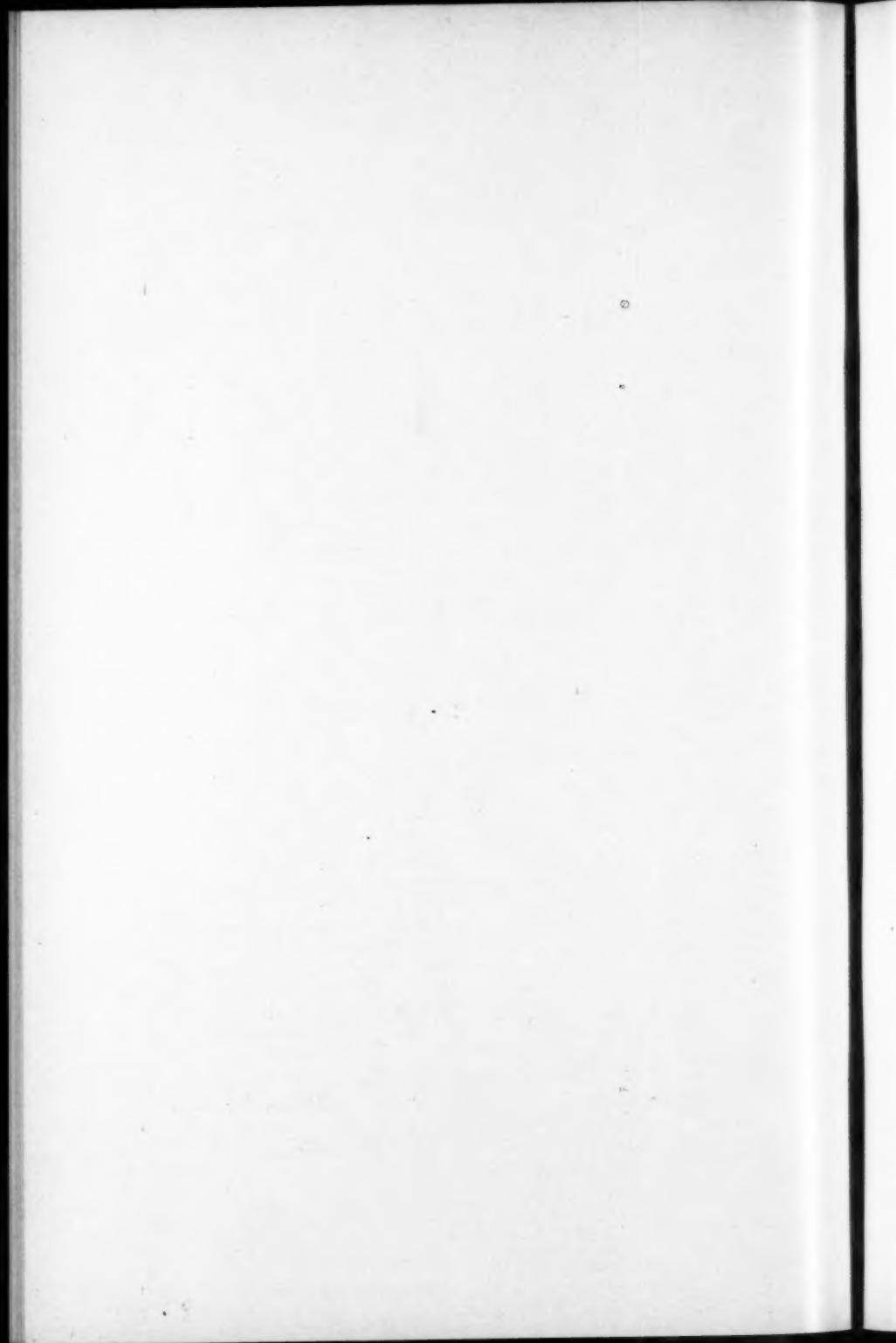
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American School
of Classical Studies
at Athens

STRUCTURAL NOTES ON THE ERECHTHEUM

THE following notes on the Erechtheum are in continuation of the article on the *Metopon* in this JOURNAL, XII, 1908, pp. 184-197. There the form of the wall at the southwest corner was shown to the height of the epistyle, but the details of the epistyle itself were considered only tentatively. It is now proposed to reconstruct the epistyle at this corner and to discuss certain items in the building account of 408/7 B.C., which help to confirm this reconstruction.

Figure 1 shows in light lines the plan of the *epikranitis* course and of the capitals of the four columns on the western

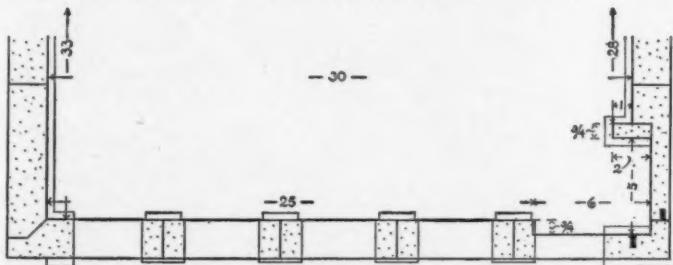


FIGURE 1.—SOFFIT OF EPISTYLE AT THE WEST END.

wall; the heavy lines represent the soffit of the epistyle at the west end of the building. Except for the two blocks next to the southwest corner, the epistyle was of the width which is normal for this course in the building — about two Attic feet.¹ That the south end of the corner epistyle block was of the form indicated in the drawing is shown by two dowel holes in the upper surface of the corner block of the *epikranitis* upon which the epistyle block rested. The northern end of this epistyle

¹ The word *foot* in this article denotes the Attic foot = 0.328 m.

block, we may safely assume, followed the lines of the capital beneath it, and had the normal width. Similarly, the epistyle block next to the corner on the south side had the shape indicated in Figure 1, for we are certainly justified in assuming that its form would have followed the lines of the *metopon*. Otherwise the capital of the *metopon* would have appeared as an awkward and meaningless projection from the wall. Apart from the special features in this corner of the temple, there is no reason to suppose that the epistyle showed any irregularities in its general design; it undoubtedly ran around the entire wall of the western part of the temple, which formed one great room some 30 feet high. The cross-wall running north and south which divided this room reached only as high as the bases of the columns on the western wall and had no connection whatever with the epistyle.¹

The accounts of expenditures upon the temple for the year 408/7 B.C. show that money was paid out for the decoration of the interior epistyle, and the question naturally arises to what portion of the epistyle reference is made, whether to that already spoken of in the western part of the building or to the epistyle of the Eastern Cella. The words of the inscription are as follows:

408/7 B.C., Sixth Prytany

Michaelis, *Arx*, App. Epig. 28 a, Col. I, ll. 4-24 and 42-50

Lines 4-24:

Τὴν | δροφὴν κατιστάσιν. τὴν καμπ[ο]λῆγην σελίδαν εἰς ἔδραν καὶ τὰς ἄλλας ἐπαγγοῦσιν εἰς ἔδραν ἐκάστην, Μάνιδι κ.τ.λ. . .

Ίκριώματα καθελοῦσιν τὰ | ὑπὸ τῶν κιόνων τῶν ἐν τῇ προστάσῃ, ἐξ ἀνδράσιν, Τεῦκρος, κ.τ.λ. . .

Ίκριω[ν] σασι τοῖς ἐνκαυταῖς ἐκ τοῦ | ἐντὸς ὑπὸ τὴν δροφὴν, Μάνιδι κ.τ.λ.

Translation:

For laying the ceiling. For setting in place the bent beam and the other main beams, to Manis, etc. (names of workmen and sums paid).

For taking down the scaffolding from the columns in the porch, to six men, Teukros, etc.

For putting up a scaffolding for the painters in encaustic in the interior beneath the ceiling, to Manis, etc.

¹ The restoration of this wall in Jahn-Michaelis, *Pausaniae Descript. Arc. Ath.*, is incorrect.

Lines 42–50:

ἐνκαυταῖς. τὸ κυμάτιον ἐνκέαντι τὸ ἐπὶ τῷ ἐπιστυλίῳ τῷ¹⁵ φέντος, πεντόβολον τὸν πόδα ἑκαστον, μισθωτής Διονυσόδωρος ἐμ Μελίτη οἰκῶν, | ἐγγυητής Ἐρακλείδης Ὀῆθεν : ΔΔΔ : κεφάλαιον ἐγκαυταῖς | : ²⁰ΔΔΔ :

Translation :

To painters in encaustic. For painting the moulding on the inner epistyle, at 5 obols a foot, contractor Dionysodoros living in Melite, surety Herakleides of Oa, 30 drachmae. Sum total of payments to painters in encaustic, 30 drachmae.

408/7 B.C., Eighth Prytany

Michaelis, *Arx*, App. Epig. 28 c, Col. II, ll. 12–22

Ἐνκαυτῇ, τὸ κυμάτιον ἐνκέαντι τὸ ἐπὶ τῷ ἐπιστυλίῳ τῷ φέντος, πεντόβο¹⁵λον τὸν πόδα ἑκαστον, πόδας | ἑκατὸν δεκατρεῖς, μισθωτή | προσαπέδομεν πρὸς φέντον εἰχε, Διονυσόδωρος ἐμ | Μελίτη οἰκοῦντι, ἐγγυητή²⁰ς Ἐρακλείδης Ὀῆθεν, ΔΔΔΔΤΤΤΤ. Κεφάλαιον ἐγκαυτῇ ΔΔΔΔΤΤΤΤ.

Translation :

To a painter in encaustic, for painting the moulding on the inner epistyle, at 5 obols a foot, 113 feet, to the contractor, Dionysodoros living in Melite, we gave in addition to what he had received before, Herakleides of Oa being surety, 44 drachmae, 1 obol. Sum total of payments to the painter in encaustic, 44 drachmae, 1 obol.

The references of the inscription are to wooden construction and, inasmuch as the ceiling of the Eastern Cella was built in the preceding year (Frickenhaus, *A.J.A.* X, 1906, p. 15), the ὄφοφή referred to in line 4 of the first passage must denote the wooden ceiling of the western room.¹ Presumably it is the same ὄφοφή which is referred to again below (l. 23). From lines 42 ff. we learn that encaustic painters, for whom a staging had been erected (ll. 21 f.), decorated the moulding on the epistyle. This encaustic work was paid for (l. 45) at 5 obols per foot, and the sum paid is 30 drachmae. One might therefore infer that precisely 36 feet had been painted. Now in the entry of the eighth prytany (l. 16) 113 feet are specified, which at the rate of $\frac{5}{6}$ of a drachma per foot would amount to 94 drachmae and 1 obol, while the sum actually paid is 44 drachmae and 1 obol. It would therefore seem that 50 drachmae

¹ The ceilings of the porches were of marble construction.

must already have been paid in the sixth and seventh prytanies. In the sixth prytany we know that 30 drachmae were paid, and it is reasonable to infer that the balance of 20 drachmae was paid in the seventh prytany, the account for which has been lost. Thus the payments of the sixth and seventh prytanies were unquestionably advances on account, and the omission in the accounts of the sixth prytany to specify the number of feet painted is therefore perfectly natural. The payment in the eighth prytany is undoubtedly final and indicates the completion of the work, and the length of 113 feet is the entire length of epistyle painted under the contract.

It has been implied above that these items in the accounts have reference to work in the western room of the building, and this is confirmed by the fact that the length of the epistyle in the East Cella was 105 feet (not 113), for that room is 30 feet wide and $22\frac{1}{2}$ feet deep.

The next point to determine is whether the length of 113 feet can be brought into harmony with the dimensions of the western room. This room is 33 feet long, east to west, and 30 feet wide. This would give an epistyle 126 feet in length, if the epistyle were regular, and the irregularities of structure in the southwest corner, which have been described above, would increase this length by about 5 feet (see Fig. 1). How then is this discrepancy to be reconciled?

In this corner there was a platform which had the width of the niche, and which was only about 11 feet below the epistyle. The latter could therefore easily have been reached by a painter from a ladder or low staging set upon the platform. No fixed scaffolding would have been necessary here as it was in the rest of the room, which was 30 feet high. To this high scaffolding reference is made in the inscription at line 21, and the material for it is probably referred to in line 14, where the removal of the scaffolding from the North Porch (*πρόστασις*) is spoken of. It is therefore reasonable to believe that the account under consideration covered only the work done from the scaffolding. That done from the platform may have been done in some earlier prytany of which we have no account. If now we assume that this platform extended toward the north as far as the first column of the west façade (see Fig. 3), the

portion of the epistyle to be painted from the high scaffold would have been 117 feet.¹ This measurement, however, is still 4 feet greater than that called for by the inscription

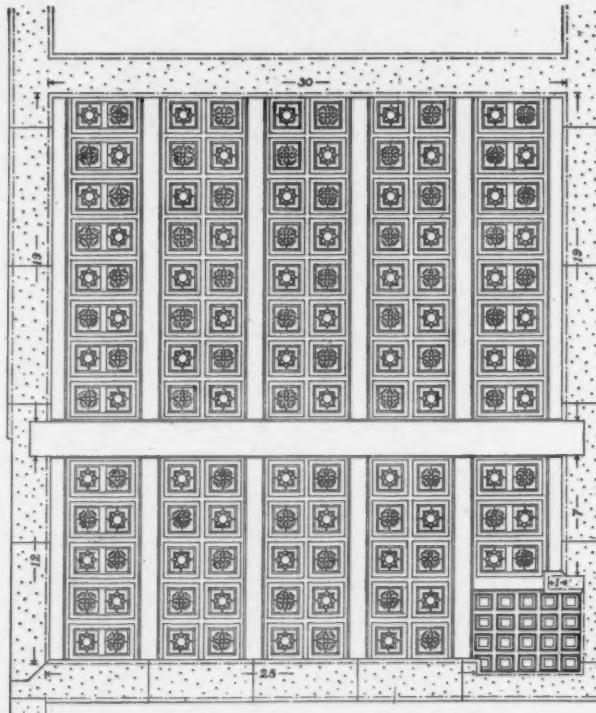


FIGURE 2.—CEILING OF WESTERN CHAMBER, RESTORED.

(113 feet), but there is a way in which this discrepancy may be explained.

In the inscription (lines 5-6) there is mention of a *καμπύλη*

1 West side	25 feet
North side	33 feet
East side	30 feet
South side	28 feet
East side of <i>metopon</i> . .	1 foot

117 feet. Cf. Fig. 1.

σελίς. *Σελίς* is the regular term for a ceiling beam, and *καμπύλη* must mean that this particular beam, which is carefully distinguished from the ordinary ones by the words of the inscription, deviated in its form from a straight line. Mr. G. P. Stevens has made the highly probable suggestion that a beam which might thus be described ran across the building from north to south (see Fig. 2). The bent effect would have been produced by the addition of struts at the walls, which, indeed, the greatness of the span really calls for, and, as a matter of fact, Mr. Stevens found evidence in the south wall that a bracket to support such a strut once existed.¹ The north wall at the corresponding point is too much damaged to yield any evidence. This *καμπύλη σελίς*, which, together with the epistyle, carried the beams of the ceiling (these ran east and west), was of course at the same height as the epistyle, and this latter would therefore have been interrupted (see Figs. 2 and 3) where the ends of the beam were inserted. The evidence for the bracket gives the approximate width of the beam as 2 feet, and so in reckoning the extent of the painted moulding on the epistyle we must deduct 2 feet on the north side, and 2 feet on the south. We thus get 113 feet, the length which the accounts call for. We obtain, furthermore, confirmation for Mr. Stevens's theory of the *καμπύλη σελίς* and for the conclusions of the article on the *Metopen*.

The probable appearance of the "bent beam" is shown in Figure 3, a restoration of the southwest corner of the building. This drawing illustrates also the other peculiar features which were discussed in the previous article,—the open intercolumniation, the platform below the niche, the *metopen* or pilaster which terminated the niche to the east, and the treatment of the

¹ In the sixth course from the top is a stone, the third from the *metopen*, which shows *anathyrosis*, implying that another block about 2 feet wide abutted against it. This was held in place by **H** clamps, the cutting for one of which is preserved. Directly above this in the fifth course the face of the wall is cut back slightly for the insertion of the strut. It is a curious fact that the long beam under discussion was not directly over the cross-wall mentioned on page 292, but was one foot farther west. The peculiar position of this beam was almost certainly due to the arrangement of the ceiling coffers, a matter which cannot now be fully discussed. The Roman repairers who built a cross-wall which reached to the ceiling placed it in a line with this beam.

epistyle at the corner. The restoration of the wooden coffered ceiling (shown also in plan in Fig. 2) was worked out after these notes were written, and the discussion of the evidence for

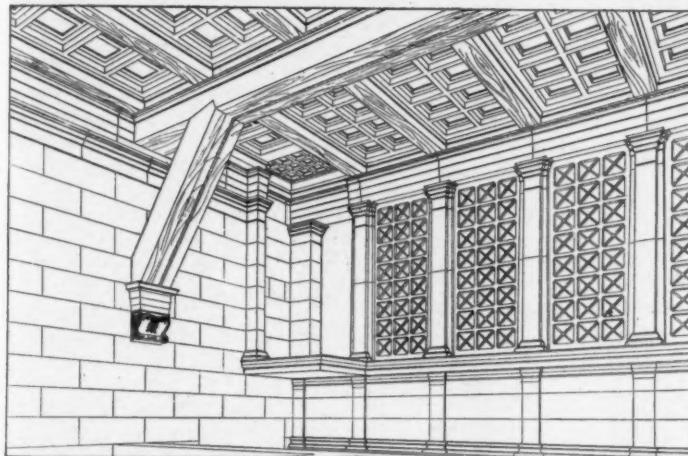


FIGURE 3.—RECONSTRUCTION OF SOUTHWEST CORNER, SHOWING *Metopen*,
NICHE, AND "BENT BEAM."

it is reserved for another article which will deal also with the ceiling of the East Cella. If the "bent beam" be accepted, the arrangement with four main beams running east and west (one over each column of the west façade) is the most natural one.

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THE ROOFED GALLERY ON THE WALLS OF
ATHENS

[PLATE VI]

THE most recent discussion of the well-known decree relating to the repairs of the fortification walls of Athens in 306 B.C.¹

concerns itself less with the architectural than with the historical and topographical problems raised by the inscription, and Dr. Frickenhaus has not attempted a restoration of the roofed gallery along the top of the walls. Neither of the two previous attempts at such a restoration is satisfactory. That of Müller (Fig. 1) is correct in its main features, but wrong in a number of details. Choisy (Fig. 2) writing half a century later was able to correct some of these errors; but by misinterpreting certain statements in the text and trusting too much to his own

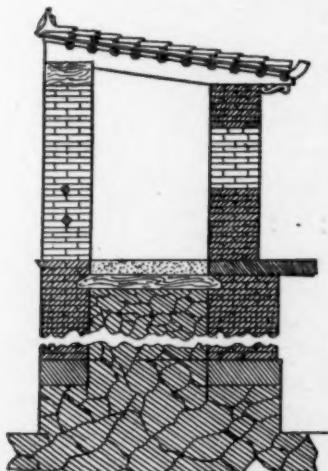
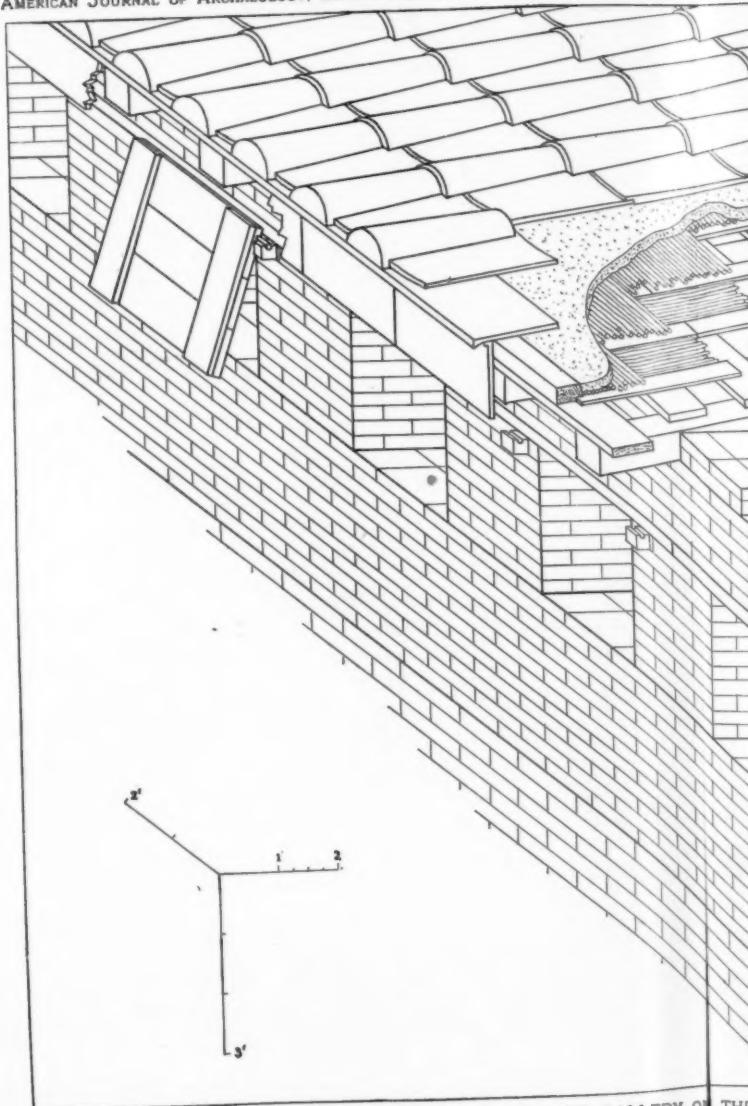


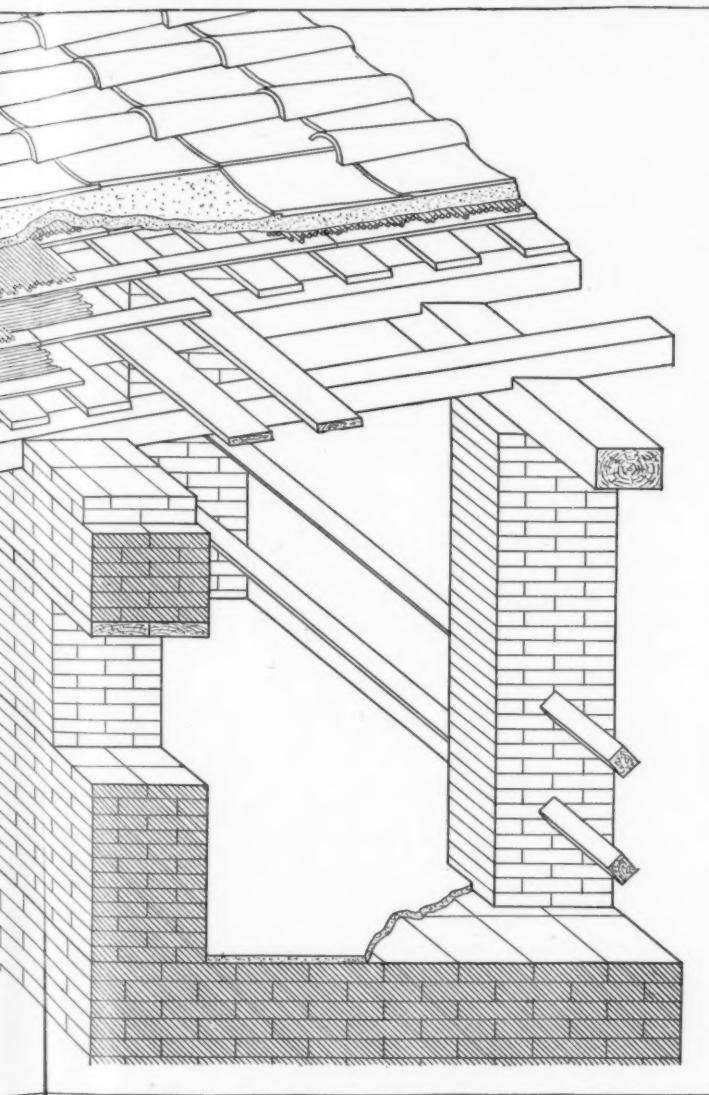
FIGURE 1.—MÜLLER'S RESTORATION
OF THE GALLERY.

¹ Frickenhaus, *Athens Mauern im IV Jahrhundert*, pp. 29-43. Previous discussions of the inscription are: Franz, *Bull. dell' Inst. Arch.*, 1835, pp. 49 ff., from a copy by Pittakis. K. O. Müller, *De monumentis Athenarum*, Göttingen, 1836, from a copy by Ross. (Reprinted without the plates in *Kunstarch. Werke*, IV, pp. 88 ff.) Rangabé, *Antiquités helléniques*, II, 771. Leake, *Topography of Athens*, I, Appendix XX, pp. 607 ff. Ussing, *Zeitschr. für Alt. Wesen*, 1848, p. 49. Koehler, *I.G. II*, 167, from a new copy. The same, *Ath. Mitt.* V, 1880, p. 276, note on the date of the inscription. Choisy, *Études épigraphiques*

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RECONSTRUCTION OF THE GALLERY ON THE



RY ON THE WALLS OF ATHENS. ISOMETRIC

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imagination he has produced a restoration which Fabricius not unjustly characterizes as a step backward rather than an advance upon Ottfried Müller.¹

In view of the importance of the passage as an architectural document a new attempt to obtain a more accurate picture of the structure seems justified. The present discussion will be limited to the architecture of the gallery, which may be conveniently treated as a subject by itself. The text of the passage, fortunately contained in the is as follows:—

nately contained in the least mutilated part of the inscription, is as follows:—

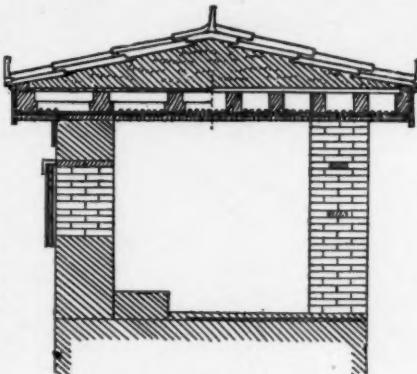


FIGURE 2.—CHOISY'S RESTORATION OF THE
GALLERY.

55 - - . καταστεγάστε δὲ καὶ [τὸν] τάροδον^[30] [τὸν κύκλον τοῦ περὶ
[. τοῦ] διατειχίσθη[το] μεταξὺ αὐτοῦ καὶ τοῦ διπύλου τοῦ ὑπὲρ τῶν
πυλῶν^[31] [καὶ τὰ μακρὰ ταῖς ἐπανεγένεται] λόγων τοῦ [τὸν] περιδρόμου τὰ
γε[ι]στα[τα] καὶ τῶν ἐπάλξεων πάντα· ὅσα (δ') ἀνὴρ ἦν πεπονήκοτα
πλέον ἔξι δακτύλων πλινθοβολήσει, δεῖται αὐτὸν θυρίδας δεῖται πλίνθο-^[32]
ους, ὑψος ποιῶν^[33] [τὸν μὲν] ἐπαλξίου τρεῖς πόδας, τ[ρί]χης δὲ θυρίδος δέκα
στοιχίους· καὶ ἐπιτήσει ὑπερτόναμα ἔνιλ^[34] [ια γο] μηφώσας δάτοιχα πάχος
στοιχίων, μῆκος ὀκτώποδα· ὑποθήσει δὲ καὶ κίβους τοῖς ὑπερτόνα-^[35] [εργα]-
νίαις καὶ ἐπιτλινθοβαλήσει ὑψος [εἰς] στοιχίους. οἰκοδομήσει δεῖται καὶ ἐκ
τοῦ ἔνδοθεν^[36] [στο] όχους οὐ μή εἰσιν οἰκοδομητοί μένοντες δεῖται λει-
60 ποντας ἐπτά πόδας, καὶ ἐνκατοικούσθησαν [οὐδεὶς] οἰκοδομητοί μένοντες τοῦ ποντοῦ^[37] εἰς τὸν πόλεμον· καὶ ἐπίθετοι γένονται δοκοὺς εἰς τοὺς στόχους· οὐ μὴ κατεστέψεται γάρ

sur l'architecture grecque, pp. 43 ff. Fabricius, *Berl. phil. Wochenschr.* IV, 1884, pp. 1118 ff., review of Choisy's work. Wachsmuth, *Die Stadt Athen*, II, pp. VI ff.

¹ Choisy's restoration is accepted by Perrot and Chipiez, *Histoire de l'Art*, VII, p. 387 and Fig. 207. Durm also reproduces Choisy's drawing (*Handb. der griech. Arch.*, Fig. 167, p. 192), but in his text assents to the criticisms of Fabricius.

σται, στεγάσσει δοκί¹⁰⁰[στιν] καὶ ἐπιβλῆ¹⁰¹[σ]ιν τι¹⁰²[θ]εὶς ἐναλλάξ, ἢ στρωτῆρ-
σιν περ¹⁰³[ι]ενκεντρίσει δι¹⁰⁴[αλ]είπων [τ]ρούς παλ¹⁰⁵[αστ]ὰς ἐκ τοῦ ἐπάνωθεν.
καὶ διοικο¹⁰⁶[δ]ομήσας ἐπὶ τοῦ το[έ]χου ἀνατεμέι τὸ γ[ε]¹⁰⁷[σ]ηπό¹⁰⁸[δ]ισμα
ὅρθι¹⁰⁹[ὸν π]αρὰ πλευρὰν ὑπερέχον μηδατ[τ]ον τρι¹¹⁰ ἡμιπό¹¹¹[δ]ια, καὶ ἐπι-
κρούστει ἀκρογείσιν ποιῶν δι¹¹²[ρθδ]ν κατὰ κεφαλὴν, πλάτος ἐπτὰ δακτύ-
λων, πάχος παλα¹¹³[σ]τῆς, παρατεμῶν ἐκ τοῦ ἐνδοθεν πάχο¹¹⁴[ς ἰμ]άντος καὶ
τὸ μέτωπον ποιήσας πρὸς τὴν κα[τ]αφορὰ¹¹⁵[ν]. ἐπικρούστε¹¹⁶[ι] δὲ καὶ εἰς τὸ
ἐντὸς ἰμ¹¹⁷[ά]στρο¹¹⁸[ν]ας διαλείποντας τρεῖς πλαστὰς, πάχος δακτύλου, [π]λάτος
πέντε δακτύλων, ἥλοις σιδη¹¹⁹[ρ]ο¹²⁰[οῖ]σ. καὶ [ι]πιβαλῶ¹²¹[κ]άλαμον λελαμέ-
νον, ὑποβαλ¹²²[ώ]ν λοβὸ¹²³[ν] ἡ κάλαμον, δο¹²⁴[ρ]ώ¹²⁵[ε]ι πηλῶ¹²⁶[η]χυρω¹²⁷[μέ]ρ¹²⁸[ν]ω
πάχος τριδακτύλω¹²⁹[ι]· καὶ κεραμώσει Λακω¹³⁰[νικό] κερ¹³¹[ά]μωι τοῦ μὲν
κύκλουν πάσαν τὴν π[άρο]¹³²[δ]ον, τῶν [δε] μακρῶν τείχων τὰς ἡγεμόνας οἱ
μή εἰσιν κείμεναι, [τ]ιθεῖς δλας ἐν πηλῶι ὄρ[θὰ πά]·¹³³ρὰ πλευ[ρ]ὰν·
καὶ κ[α]λυπτηρ¹³⁴[ι]εῖ, τιθεῖς τοὺς καλυπτῆρας δλους ἐν πηλῶι· καὶ
ἀπογεισώ¹³⁵[σει ἐκ] τοῦ ἔξωθεν γεύσοις Κορινθίοις, ἀναξῶν το[ὺ]ς
[ά]ρ[μ]ο¹³⁶[ο]ύσ ἀρμότοντας καὶ τιθεῖς δ[ρθὰ παρὰ π]¹³⁷ενπρὰν καὶ κατὰ
κεφαλὴν. καὶ ποιήσας κα[ν]θήλιον .. δορώ¹³⁸[σ]ει πηλῶ¹³⁹[η]χυρωμένω-
[ι] .. .]·¹⁴⁰υτρεχές υψός τετ[τ]άρων στοίχων. -----

The text differs in some details from that of Koehler in the *Corpus*. The more important variants are given here. Line 53. τοῦ περὶ [τὸ ἀστυ ἄνευ ? το]ῦ Koehler. Wachsmuth places a comma after πυλῶν. Line 54. [καὶ τὰ μα]κρ[ά] Frickenhaus. [ἐπὶ ? τὰ μα]κρ[ά] Koehler. ἐπ[α]νε¹⁴¹[λῶ]ν Frickenhaus. ἐπ[ι-βα]λῶν Koehler. Koehler places no punctuation mark after πάντα. Wachsmuth places a comma after γείσα and after πάντα. ὅσα (δ)' ἀν ἡ π[ετονη]κότα Lattermann, on the evidence of a Delian inscription, *B. C. H.* xxxii, 1908, p. 296. ἐ[ξεστη]-κότα ? Koehler, Frickenhaus. Line 60. ἀνορθο¹⁴²[ν] είναι earlier editions. ἀνορθο¹⁴³[ν θ]είναι Frickenhaus. Line 70. ὄρ[θὰ πα]ρά Koehler. ὄπ[ας πα]ρά Frickenhaus, but without explanation. Line 72. [ά]ρ[μ]ο¹⁴⁴[ο]ύσ Schoene, *Philonis mech. synt.* 80, 36, followed by Frickenhaus, [κ]ρ[ι]ούσ earlier editors. Line 73. [έκ]δορώ¹⁴⁵[σ]ει Rangabé, Frickenhaus. [-ι διάζωμα ιθ]υτρεχές Müller. [-ι πλάτος εύθ]υτρεχές Frickenhaus.

Translation :

... And he shall roof the gallery of the circuit wall around [the city (?) —] the cross-wall and the *dipylon* above the gates [and the] long walls, removing all the cornices of the *περιθώρος* and the parapets; and wherever there is an injury measuring more than six dac-

tyls he shall lay new bricks, leaving openings two bricks in width, making the height of the parapet three feet, that of the openings ten courses of brick; and he shall lay (over the openings and upon the piers between them) wooden lintels extending through the width of the wall, fastening them with dowels, the lintels to be one course of brick in thickness and eight feet long, and he shall place below the lintels blocks (of wood), and (upon the lintels) he shall lay six courses of brick. And he shall build pillars along the inner edge (of the gallery) wherever they are not already built, two bricks in width, seven feet apart. And he shall imbed in the pillars two beams a foot and a half apart (to serve as a railing), making the pillars of such a height that the roof shall have a slope (?), and he shall lay architraves upon the pillars. And where there is no roof he shall roof the gallery with rafters and planks, placing them cross-wise, or else he shall mortise square timbers (upon the rafters in place of the planks) setting them three palms apart *ἐκ τοῦ ἐπάνωθεν*. And having built up with brick (the spaces between the rafters) upon the wall, he shall trim the front ends of the rafters so as to be vertical, making them project not less than one foot and a half from the wall, and he shall nail on a beam as a crowning member of the cornice, making it straight on top, its width to be seven dactyls, its thickness one palm; and he shall cut a rabbet in its inner face of the thickness of a sheathing plank, and its front he shall make according to the line (of the ends of the rafters). And within he shall nail on with iron nails sheathing planks three palms apart, one dactyl thick, five dactyls wide. And after laying upon the sheathing moistened rushes and under these (*i.e.* between the planks) beanstalks or rushes, he shall cover the whole with a layer of clay mixed with straw three dactyls in thickness. And he shall lay Laconian tiles over the whole gallery of the circuit wall, and shall put in place the tiles (*ἡγεμόνες*) of the long walls wherever they are not in place, laying them all in clay with their faces vertical, and he shall lay the cover tiles all in clay. And he shall cover the front of the roof timbers with Corinthian cornices, trimming the joints so that they shall fit tightly, making them true vertically and horizontally. And having set up a scaffolding he shall put on a coating of clay mixed with straw to the height of four courses. . . .

The topographical problems raised by lines 52-54 do not concern us here. It is clear that the passageway along the top of the walls (*πάροδος*) is to receive a roof in places where no such roof existed, or where it had fallen into decay. Other

portions of the wall already had a roof, as appears from the phrase *οὐ μὴ κατεστέγασται* in line 61. The screen-wall (*περίδρομος*?¹) which ran along the top of the main wall at its outer face is to have its cornices (slabs of terra-cotta which protected the exposed top of the wall) removed, and is to be repaired or rebuilt as the case may require. The specifications for the construction of this wall, the pillars to be placed along the inner edge of the gallery, and the roof they supported are recorded in lines 55-74. Though somewhat deficient as regards measurements, they furnish enough data for the restoration shown on PLATE VI.

The arrangement of the wall and pillars indicated by the plan (Fig. 3) is practically that of Müller and Choisy. Most



FIGURE 3.—PLAN OF GALLERY.

of the dimensions which are not given explicitly in the inscription can be inferred with reasonable certainty. Thus the length of the wooden lintels, 8 feet, fixes the width of the piers between the window openings as 2 or 6 feet, since otherwise a joint would come at intervals over a window. The arrangement with piers 2 feet wide is preferable since it allows twice

¹ This word has never been satisfactorily explained. Choisy supposed it to designate an unroofed passageway, *πάροδος* being used only for the roofed gallery. But in the two places in which the word occurs it is closely connected with *πραλήσις*: line 54 *τοῦ περιδρόμου τὰ γεῖσα καὶ τὰς ἐπαλήσεως πάρτα*, and line 84 *τὸν περιδρόμον καὶ τὸ θωρακεῖον καὶ τὸ γεῖσον*. "Πραλήσις is clearly the low parapet (3 feet high, line 55) behind which the defenders stood. Upon the parapet piers were erected at frequent intervals. This crenelated wall as a whole (parapet and piers) is perhaps meant by the word *περιδρόμος*.

as many defenders to be massed at any point of the wall. Only one dimension of the pillars is given, but since the space between them is stated to be 7 feet, it is probable that they were 1 foot (one brick) thick and placed opposite every second pier of the outer wall, as indicated on the plan. The restoration of this wall as 2 feet (two bricks) thick may be regarded as certain, though this dimension is not stated.

In PLATE VI the bricks have been drawn as 1 foot square and $\frac{1}{4}$ foot thick, following Müller and Choisy. Vitruvius (II, iii, 3) states that the sun-dried bricks used by the Greeks were square, and distinguishes two varieties, the *πεντάδωρον*, $1\frac{1}{4}$ foot square, used for public structures, and the *τετράδωρον*, 1 foot square, used for private houses. Bricks which have been preserved in fortification walls at Eleusis, measure on an average $0.45 \times 0.45 \times 0.10$ m., or rather more than the *πεντάδωρον* of Vitruvius (= 0.41 m.). An inscription from Eleusis¹ mentions still larger bricks, *πλινθοί . . . τριημιπόδιοι* (= 0.492 m.). But for the light structure under discussion the smaller sized bricks (*τετράδωρον*) may safely be assumed. Used in conjunction with half-bricks (*ἡμιπλινθία*, line 74. Cf. Vitruvius, II, iii, 4, *semilateria*) they fit perfectly the dimensions of the screen-wall and the pillars. The main wall was doubtless built of larger bricks, as has been indicated in the drawing. The thickness of the main wall is nowhere indicated in the inscription, for the good reason that it varied in different parts. Existing remains of the foundations in Athens and the Piraeus show that the walls varied from 2.50 m. to 8 m. in thickness. In PLATE VI the wall has been drawn as 10 Attic feet (= 3.28 m.) thick.

The wooden lintels (*ὑπερτίναια*) are restored by Müller as one line of planks 2 feet wide. Choisy assumes two rows of planks each 1 foot wide. The wooden blocks (*κύβοι*) placed below the lintels, according to Müller, are a device to hold the planks firmly in place (cf. Fig. 4). Choisy's explanation of them, as projecting from the face of the wall on either side of each window as supports for the shutters, is improbable.

The two beams (*στρωτῆρες*, line 60), which are to be built into the pillars $1\frac{1}{2}$ feet apart, have in PLATE VI been placed

¹ Dittenberger, *Syll.*², 587, lines 55, 57.

near the floor as a balustrade (so Müller). Choisy, as a result of his incorrect arrangement of the roof timbers, is obliged to place these beams higher up (see Fig. 2), their function being to strengthen the pillars.

The height of the screen-wall, assuming the bricks to be $\frac{1}{4}$ foot thick, is $7\frac{1}{4}$ feet. The height of the pillars is not given explicitly, and the statement with regard to it, *ὑψός ποιῶν τοῦ στόχου ὥστε ἀνορθο[ν] εἰναι εἰς τὸ εῖσω*, is obscure. Müller supposed the phrase *ἀνορθὸν εἰς τι* to signify that one part of a

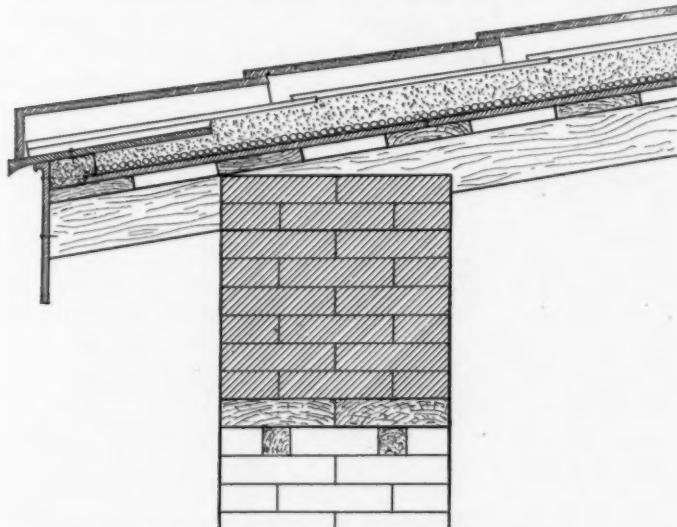


FIGURE 4.—SECTION SHOWING ROOF CONSTRUCTION.

structure is carried up to the level of another part. So here the top of the pillar is to be level with the top of the screen-wall, the latter being regarded as situated at the inner edge of the main wall. By making the beam (*δοκός*) laid upon the pillars as an architrave unnecessarily large (2 feet wide, 1 foot high), and by making the gallery one foot narrower than is done in the present restoration, he is able to give the rafters a sufficient slope (see Fig. 1). This interpretation of the phrase was adopted by Choisy since it fitted well with his erroneous

restoration of a roof with a slope in both directions (see Fig. 2). Wachsmuth proposed as a solution of one of the difficulties the emendation *εἰς τὸ ἔξω*. Frickenhaus restores *ἄστε* *ἀνορθό*[ν θ]εῖν, but without comment. Though I am unable to give a satisfactory interpretation of the sentence, I have attempted in the translation to suggest its general sense, on the theory that the prefix in *ἀνορθός* has a privative force, the word implying that the top of the pillar is *not* to be in line with the top of the wall; *i.e.* it is to be at a higher level. In PLATE VI the pillar is made 8 feet high. The additional $\frac{1}{4}$ of a foot, together with the thickness of the architrave, gives the roof a rise of about 1 in 6. The rafters (*δοκίδες*) must have rested directly upon the top of the brick screen-wall, since no intermediate wooden member (wall-plate) is mentioned in the inscription. The explanation of the method in which they were held in place is afforded by the phrase *καὶ διοκοδομήσας ἐπὶ τοῦ τοίχου* (line 63), which seems not to have been understood by Müller, and is used by Choisy as evidence for his restoration of a roof with two slopes. The latter places the architraves (*δοκοί*) across the gallery, instead of from pillar to pillar, and the minor timbers over them. Upon this foundation he places a solid mass of clay nearly 2 feet thick in the centre, and sloping down on both sides to form a bed for the two series of tiles (see Fig. 2). But such a feature is entirely without parallels in Greek architecture and increases unnecessarily the weight of the roof. The phrase above quoted, which is the only evidence in support of this theory, can be explained in a much more simple manner. The *τοίχος* must be the screen-wall, and the prefix *δια-* suggests that the spaces on the wall *between* the rafters were to be filled with brick, the rafters being thus held firmly in place (see PLATE VI).¹

The timbers to be laid across the rafters could be either *ἐπιβλήτες* or *στρωτήρες*² according to the preference of the con-

¹ Cf. Fabricius, *l.c.* p. 1118.

² The terms *ἐπιβλήτης* and *στρωτήρης* as well as *δοκός*, *δοκίς*, and *ιυάς* occur in the inscription Dittenberger, *Syll.*², 587. The prices paid give some idea of the relative size of these timbers: *δοκός*, 17 dr. (l. 62); *δοκίς*, 2 dr. (l. 87); *στρωτήρης*, 1 dr. 4 ob. (l. 63), 2 dr. 3 ob. (l. 85); *ιυάς*, 1 dr. (l. 64); *ἐπιβλήτης*, $\frac{1}{16}$ dr. (l. 65). The *ἐπιβλήτες* here evidently have a different function. They are perhaps comparable to our "furring strips." The form *ἐπιβλήτραι* occurs in line 193. The

tractor. The former were apparently planks which were laid upon the rafters (*ἐπιβάλλειν*); the latter were square beams mortised (literally: "grafted") upon them (*περιεγκεντρίζειν*). The former arrangement only is shown on PLATE VI and Figure 4. These latter timbers were to be placed $\frac{3}{4}$ of a foot apart; the additional words *ἐκ τοῦ ἐπάνωθεν* have caused trouble.¹ For the following suggestion I am indebted to

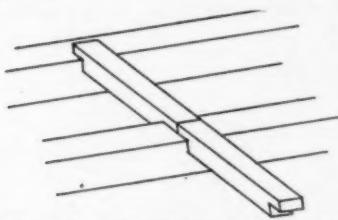


FIGURE 5.—ALTERNATIVE METHOD OF CONSTRUCTION.

5). The passage in the inscription may perhaps be rendered, 'on the top he shall mortise [the rafters] round about with beams three palms apart.' If this is correct, the words *ἐκ τοῦ ἐπάνωθεν* modify not merely the expression *διαλείπων τρεῖς παλαστάς*, but the entire clause."²

The projecting ends of the rafters are referred to in line 63 by the collective term *γεισηπόδισμα*,³ which may be taken to

whole subject of the Greek technical terms for timbers used in building, for which this inscription furnishes abundant material, needs a thorough investigation.

¹ Fabricius, *i.e.*, interprets the passage: "nach der ersten Lösung sollen quer über diesen *δοκίδες* (*ἐναλλάξ*), also in der Längsrichtung der Mauer, schwächeren Balken liegen (die deshalb *ἐπιβλήτες* heißen), nach der anderen sollen die schwächeren Balken (*στρωτῆρες*) in die *δοκίδες* eingelassen werden (*περιεγκεντρίσει*), jedoch so, dass oben zwischen ihren Kopfenden ein Zwischenraum von 3 *παλαστάς* bleibt." But if the *στρωτῆρες* were laid "in der Längsrichtung der Mauer," his expression "oben zwischen ihren Kopfenden" as a translation of *ἐκ τοῦ ἐπάνωθεν* is meaningless.

² This interpretation does justice to the *περι-* of *περιεγκεντρίσει*, but the construction of the sentence is exceedingly awkward. The style of the inscription is, however, awkward at best. The provision that the *στρωτῆρες* shall be *ἐκ τοῦ ἐπάνωθεν* seems superfluous, but hardly more so than the previous provision that *ἐπιβλήτες* shall be *ἐναλλάξ* relatively to the *δοκίδες*. H. N. F.

³ Also line 114, *γεισηπόδι*[*σμ*]ατι. The more common form is used in line 51, θράσος ή γεισηπόσις ή γεισος λίθινος ή κεραμεοῦν. Cf. Müller, *i.e.* p. 49.

include the plank (*ἐπιβλής*) laid over them. They are to be sawn so as to be *ὁρθὸν παρὰ πλευράν*, *i.e.* their faces are to be in a vertical line. Over them is to be nailed a beam called *ἀκρογέσιον*, the correct explanation of which is due to Choisy. It is to be *ὁρθὸν κατὰ κεφαλὴν*; *i.e.* its top surface is to be parallel to the slope of the roof. Its face (*μέτωπον*) is to be in line with the face of the rafters.¹ The lower ends of the sheathing planks (*ἱμάντες*) are to fit into a rabbet cut at the bottom of its inner face.

The spaces left by the triple system of timbers (*δοκίδες*, *ἐπιβλῆτες* or *στρωτῆτες* and *ἱμάντες*) are to be filled by two layers of rushes, the upper layer being placed across the *ἱμάντες*, the lower (*ὑποβαλάν*) apparently between them, resting on the *ἐπιβλῆτες*. The whole surface of the roof is next to be covered (*δορῶσει*, line 68²) with a layer of clay 3 dactyls thick, supported at the lower edge by the *ἀκρογέσιον*. As in the case of the Piraeic Arsenal the tiles were imbedded in this layer of clay, a method which seems to have been generally employed in Greece for terra-cotta tiles, as holes for nails do not as a rule occur in existing specimens (cf. Fabricius, *Hermes*, XVII, 1882, p. 582). Marble tiles were probably laid directly upon the wooden sheathing, their weight being sufficient to hold them in place.

The inscription specifies that "Laconian" tiles are to be used, a variety which is also mentioned in the Eleusinian inscription, Dittenberger, *Syll.* 2, 587, line 188, *κεράμου Λακωνικοῦ ζεύγη: Π: τὸ ζεῦγος ΙΙΙΙ.* Another type, the Corinthian, is mentioned more

¹ For the meaning of *μέτωπον* as an architectural term, see *A.J.A.* XII, 1908, p. 190. For the phrase *πρὸς τὴν καταφοράν*, cf. Dittenberger, *Syll.* 2, 542, line 16, *ἐπικέφαλος δὲ (τὸν λίθον ἔκστος) κατὰ κεφαλὴν καὶ συνομαλίσας πρὸς τὴν καταφοράν*. *I.G.* XII, 2, 10, line 16, *πρὸς τὴν καταφοράν τοῦ τότου*. Dittenberger, *Syll.* 2, 537, line 51, *κορυφαῖς . . . υφος δὲ πέντε παλαιστῶν καὶ δυοῖν δακτύλοιν διεν τῆς καταφορᾶς*. In all these cases there is the idea of a downward slope, the first two referring to sloping ground. The upper surface of the ridge-beam (*κορυφαῖος*) of the Piraeic Arsenal was made with a slope in both directions to suit that of the rafters. Here the face of the *ἀκρογέσιον* is actually to be made vertical, but its plane when considered with reference to these timbers alone (*ἀκρογέσιον*, *ἐπιβλής*, *δοκίς*) may be regarded as oblique.

² The meaning of this word is well known from its occurrence in the specifications for the building of the Piraeic Arsenal, Dittenberger, *Syll.* 2, 537, line 58. Dittenberger connects it with *δορά*, 'hide.'

frequently.¹ The identification of these two varieties is due to Dörpfeld (*Ath. Mitt.* VIII, 1883, p. 162). The Laconian tiles were of the more primitive type, shown in PLATE VI, consisting of slightly curved pan-tiles (*imbrices*) and semicircular cover-tiles (*tegulae*). The more elaborate system with large, flat *imbrices* and bent *tegulae* was called Corinthian, either because it was invented at Corinth or because the Corinthian factories were especially famous. That such tiles were not necessarily made at Corinth appears from the second passage quoted below, note 1. The theory that the tiles used to roof the Athenian fortification walls were of the curved shape receives some support from the fact that the excavations at the base of the walls on Eetioneia brought to light a large number of such tiles bearing the inscription *δημοσία Πειραιέως* (*B.C.H.* XII, 1888, p. 351). For examples of this type of tiles, cf. *Olympia, die Baudenkmäler*, II, pl. 98, where tiles from the Heraeum and other examples are figured.²

The correct explanation of *γείσα Κορίνθια* as a sheathing of

¹ Dittenberger, *Syll.*², 537, line 58, *κεραμώσει Κορίνθιοι κεράμωψ ἀρμέττοντι πρός δλληδον.* *Ibid.* 587, line 71, *κεραμίδες Κορίνθιας παρὰ Δημητρίου ἐν Λακιάδων οἰκουντος Ή, τιμῇ Ή, κομιδὴ τούτων Ἐλευσίναδε ΔΔΔΔ* (evidently from an Athenian factory). Line 72, *κεραμίδες κορίνθιαι ἐκ Κορίνθου, ἡ κεραμίς ΙΙΙΙΙ, κεφαλαῖον ΗΠΔΓΗΙΙΙΙΙ.* κομιδὴ τούτων Ἐλευσίναδε ΓΗΙΙΙΙ. Called also *Κορίνθιοι ήτε* at Delphi, *B.C.H.* XXVI, 1902, p. 42, line 35, *Θευγένης Κνίδιος ἐδέξατο κέραμον παρασχειν Κορίνθιοιδ[η] προστεγαστήρα τῷ ναῷ.* Corinthian tiles are mentioned also by Pollux, X, 182, *κέραμον Ἀττικὸν καὶ Κορίνθιον, X, 151, καλυπτῆρας Κορινθιογεῖς.*

² A different explanation of *κέραμος Κορίνθιος* has recently been advanced by Lattermann, *B.C.H.* XXXII, 1908, p. 298. Observing that ordinary tiles are bought in pairs (*ζεύγη*), consisting of an *imbrex* and a *tegula*, while the Corinthian tiles are usually bought singly, he argues that the latter were composed of an *imbrex* and a *tegula* made in one piece. But this is only a minor variation within one of two different types. Comparatively few examples of such double tiles have come down to us, and are not to be regarded as normal. The two specimens reproduced by Durm, *Baukunst der Griechen*,³ Fig. 173, p. 199, belong at the edge of a roof; the front of the *imbrex* bears a painted pattern, and the *tegula* ends in an antefix in the form of an anthemion. They are special forms like the *παραιεῖδες ἡγεμόνες λεοποκέφαλοι* and the *ἡγεμόνες ἔχουσαι τὸν καλυπτῆρα* (*I.G.* II, 807, lines 110 ff.) quoted by Lattermann. Such a refinement is more suited to the technique of marble, but here again examples of its use are very rare (Durm,³ Fig. 177, Tholos at Delphi, Fig. 178, temple at Bassae). Lattermann maintains that the *κέραμος Κορίνθιοιδής* in the inscription from Delphi, which is paid for by the pair, is not really Corinthian. But if not, in what does the resemblance consist?

terra-cotta nailed against the ends of the roof timbers is due to Choisy. In the drawing on PLATE VI, I have assumed in addition to the vertical slab a horizontal one nailed upon the *ἀκρογείσιον*. This feature, which is necessary as a support for the first row of Laconian tiles, is taken from the roof of the Heraeum at Olympia.

The last sentence of the passage (ll. 73, 74) is obscure. Choisy supposes it to refer to a frieze of clay 1 foot high placed along the top of the screen-wall (see Fig. 2).

The wooden shutters, *θυρίδες κατάρακτοι*, have been restored in PLATE VI after Choisy, though the evidence of the inscription is not altogether clear.¹

Finally, the floor of the gallery is to be paved with clay mixed with potsherds placed over a layer of rushes,² and the exposed vertical surfaces of the walls are to be plastered with a similar substance.

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¹ Lines 75 ff. [ποιήσ]ει δὲ καὶ θυρίδας τοῦ δοστεως τῷ κύκλῳ κα[τ]αράκτοις κατ' ἔπαλξιν -- [τε] παλξι[ψ σ]τροφέα προσβάλλων καὶ συνγον[φώ]σας [ὑπ]οτρυχίσει π--- ιδε[...] πάχος ἔκστον διδ[ά]κτολον, καὶ ἀντι[ινγ]ώσει δυεῖν ἀ[ντιβάγον]ιν -- κα]ι καθη[λά]σ[ε]: ήλοις σιδηροῖς[τε] πλατέο[ι]ν πέντε εἰς τὸ ἀντίζυγον. For the meaning of *καταράκτης*, cf. Müller, *l.c.* p. 67. The shutters seem to have been composed of horizontal planks strengthened by two vertical cross-pieces (*ἀντιβάγα*), each nailed on with five nails. Frickenhaus, *l.c.* p. 36, states that the city wall did not have a screen-wall with windows, but simply crenelated battlements, and that the shutters therefore were hinged at the bottom. But the word *ἔπαλξι*, the occurrence of which in lines 76, 80, 81, 86 he regards as evidence for this view, is used also in connection with the wall with windows, line 56. The passageway had an *όροφη* (l. 89), as he admits; and there is no reason to suppose that it differed from the structure described above.

² Line 82 ἀ[α]χώσας καὶ δ[σ]τρακώ[σας]. On the meaning of these words, see Müller, *l.c.* p. 68.

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THE SO-CALLED BALUSTRADES OF TRAJAN

THE so-called balustrades of Trajan afford an interesting instance of the numerous problems in art, history, and topography which the discovery of a monument sometimes seems to arouse rather than to solve. The historian is primarily interested in the events which these reliefs portray; the student of art is interested in the execution, the technique, while the topographer finds abundant material for discussion in the identification of the backgrounds, which represent various buildings in the Forum. In the almost forty years¹ since these reliefs came to light, the historian and the student of art have largely solved their problems.² The deeds are the deeds of Trajan and the art is the art of his age. It seems also as though the topographer had found peace, and for almost ten years there has been a practical unanimity in the explanation of the backgrounds. Meantime, however, our knowledge of the topography of the Forum has been steadily advancing, until it has become unfortunately necessary to disturb this peace and to resuscitate an abandoned theory, for the simple reason that recent developments are quite irreconcilable with the orthodox view.

For convenience, I give the name Balustrade A to that one of the two reliefs, the incomplete one, which at present faces the temple of Divus Julius and represents the cancellation of arrears of taxes (Fig. 1); similarly, Balustrade B will be that

¹ They were unearthed in September, 1872. The first scientific account of them was given by Brizio in the *Annali dell' Instituto*, 1872, pp. 317 ff.

² For a good discussion of the reliefs in relation to Roman art, cf. Mrs. Strong's *Roman Sculpture*, p. 151. A satisfactory account of the historical interest in the scenes is given by Jordan, *Topographie*, 1, 2, pp. 219 ff. For a good general résumé, cf. A. S. Jenkins, *A.J.A.*, 1901, pp. 58-82.

one which faces the Capitoline and portrays the *Institutio Alimentaria* (Fig. 2).

The orthodox view of the backgrounds is practically that which was proposed by Brizio in the first publication, adopted by Jordan and Richter, and which has since become classic in Huelsen's *Roman Forum*. According to this view, the two balustrades stood one on each end of the Rostra, Balustrade A on the side nearest the Basilica Julia, and Balustrade B on the side nearest the Basilica Aemilia. The *suovetaurilia* were on the outside, and the historical reliefs faced inwards. The backgrounds in these reliefs represented what would have been actually visible to one who stood on the Rostra in front of them in case he had been able to look over the top and out beyond them.¹

FIGURE 1.—BALUSTRADE A: CANCELLATION OF ARREARS.



¹ To have looked over the top of them would have been, in actual practice, very difficult. Excluding the pedestal, the slabs are 1.70 m. in height.

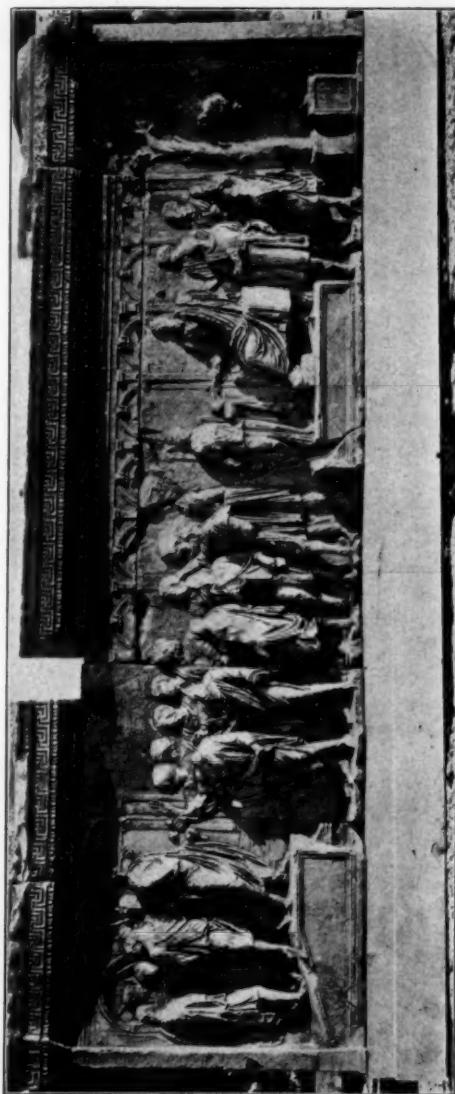


FIGURE 2.—BALUSTRADE B: INSTITUTIO ALIMENTARIA.

Thus on Balustrade A, reading from left to right, the spectator saw Marsyas and the fig tree, then the arcades of the Basilica Julia, then the temple of Saturn, then an arch either unknown or indicating the Tabularium, then the temple of Vespasian, and, finally, on the section which has been lost, the temple of Concord. Similarly, on Balustrade B, again reading from left to right, there comes first an (unidentified) arch, then the Curia, then a blank indicating the Argiletum, then the Basilica Aemilia, and, finally, Marsyas and the fig tree.

Let us now examine certain of these identifications in the

light of recent discoveries. On Balustrade B the second building from the left end shows a façade of five columns and the entablature. According to the current theory, it is identified as the Curia. If the Curia had not been preserved to us, this identification might have passed unchallenged. But, thanks to S. Adriano, the Curia is there, and the original façade is there, including some of the entablature. This façade permits of no columns in front of it, nor is there any room for such columns on the podium which still exists in front of the temple. It may well be that Diocletian restored the Curia, but it is difficult to see how any previous building could have had columns in front of it. In support of the column-theory, a coin of Augustus¹ has been brought forward. On the reverse is represented a building with a portico running around it. On the roof is a figure of Victoria, and across the frieze on the façade are the words IMP. CAESAR. The identification with the Curia rests entirely upon the presence of the Victoria on the summit of the roof. The coin itself, however, bears on its face the absolute proof that whatever building it may be it cannot be the Curia. This proof consists in the inscription IMP. CAESAR across the frieze. It is unthinkable that Augustus, whose policy lay in seeming to respect Republican institutions, should have stamped his name as Imperator on the façade of that particular building which represented the essence of popular government.²

We may well allow certain liberties to the artist who made the reliefs. In general, such representations are often inaccurate. The number of columns in a temple façade is often wrong, the architectural order of the columns is often incorrectly given, but the general effect is a real representation of the object intended. Such an effect could not be produced by the arbitrary addition of a columned façade to a building

¹ Cohen, *Auguste*, No. 122. The coin was minted between 35 and 28 B.C.

² One is tempted to speculate as to what temple this is. Close examination shows that the columns represent not the façade of a temple (which may also be indicated), but rather a portico surrounding it. Is it by chance the temple of Apollo on the Palatine, dedicated B.C. 29? Before the quadriga was placed on the fastigium? The high podium would agree admirably with Pinza's recent identification of the so-called temple of Jupiter Victor on the Palatine as the temple of Apollo.

which had no columns, and was among the sights most familiar to the eyes of Romans.

Accordingly, the second building from the left end cannot by any chance be the Curia. Let us see whether the building which follows after the vacant space (supposed to represent the Argiletum) can be the Basilica Aemilia.

The most noticeable feature of the two reliefs is the presence on both of them of Marsyas and the fig tree. These have been explained generally in one of two ways: either as symbolic, or as having local significance. The symbolic interpretation has always suffered from two things, the difficulty of establishing what Marsyas and the fig tree can possibly stand for except a locality,¹ and the difficulty of introducing one symbolic element into a series of inanimate objects, every one of which has local significance. The second view, that Marsyas and the fig tree indicate a locality, just as much as the buildings do, has had hitherto this advantage for the interpreters, that the exact site of these objects was not known, and therefore they could be placed in various parts of the Forum according as they best fitted the interpretation. No one has claimed the existence in the Roman Forum of more than one Marsyas, and if there be but one, if it is to appear at the end of both the Basilica Julia and the Basilica Aemilia, it must be thought of as in front of the temple of Divus Julius, and the spectator must be at the other end of the Forum, which fits, of course, the theory that the spectator stood on the Rostra. But we know that the Marsyas was near the Lacus Curtius, and in the last ten years the site of the Lacus Curtius has been ascertained. Instead of being near the temple of Divus Julius, it is situated at the other end of the Forum, not far from the Rostra. In other words, if we draw a line across the Forum, parallel to the Rostra and the temple of Divus Julius, and passing through the Marsyas statue, this line will pretty nearly bisect the façade of the Basilica Julia, but it will either avoid the Basilica Aemilia entirely or graze its western rather than its eastern end; that is to

¹ That Marsyas was used in the provincial towns somewhat like Roland in North Germany as the symbol of civic liberty is true, but it is of no value in interpreting the statue in the Roman Forum. It is the presence of this statue in the Forum which gave rise to the association. The Marsyas in Rome thus explains the association, but the association does not explain it.

say, it will be at exactly the opposite end of the Basilica Aemilia from that on which we find it on Balustrade B. Accordingly, the row of arches on this balustrade cannot represent the Basilica Aemilia. But if neither the Curia nor the Basilica Aemilia is represented, it is not possible that the background represents that side of the Forum.

It is at this point that we recall a theory very early suggested, but since forgotten, overwhelmed by the claims of symmetry which the orthodox explanation offers. It is the theory that Balustrade B is the continuation of the Basilica Julia and represents the same side of the Forum. This suggestion was made first by Nichols,¹ and carried out most cleverly by Marrucchi,² and also by Middleton.³ Let us examine it in the light of recent knowledge.

Huelsen has very cleverly called attention to the fact that, on Balustrade A, that building which every one agrees is the Basilica Julia has six arcades, and that there are in the real Basilica Julia exactly six arcades before we come opposite to the point where the Marsyas statue stood. The logical outcome, however, of this brilliant observation is that the artist who designed the backgrounds on the balustrades was keenly aware of the position of the Marsyas statue, and that he intended it to have an absolutely definite local significance. It follows, also, that his reliefs were intended to be seen from a point from which the Marsyas statue and the fig tree were seen with the Basilica Julia in the background. If this is the case, then the repetition of the Marsyas on Balustrade B must be seen from the same position, and as the fig tree and Marsyas follow in the same order, it is not possible to think of them as seen from opposite points, with the Basilica Aemilia as one of the backgrounds, even if it were possible to get the Basilica Aemilia into the background. Balustrade B is accordingly the continuation of the same plane.

Once granted that the arcades on Balustrade B represent a continuation of the Basilica Julia, the rest of the explanation is most simple. The vacant space is indeed a street, but not the

¹ *Roman Forum*, 1877, pp. 66 ff.

² *Description du Forum Romain*, 1885, pp. 159 ff.

³ *Remains of Ancient Rome*, 1892, pp. 345 ff.

Argiletum; instead the Vicus Tuscus. The temple which follows is that of Castor and Pollux (we can see the steps leading down from the high podium), and finally the arch is the arch of Augustus,¹ and the Rostra that of the Divus Julius.

The duplication of Marsyas and the fig tree is not intended as emphasis, but merely as an indication of the point at which the representation of the Basilica Julia is broken, to be resumed again on the following slab. It is similar to the old-fashioned habit of putting at the bottom of the page the same word which came first on the page following. The reason why the break was necessary was in the structure for which these balustrades were designed. An opening, a door, occurred at this point.

But this leads us to the discussion of a matter which is closely connected with the interpretation of the backgrounds, the question of the original purpose and position of these so-called balustrades. Ever since Richter² suggested (in 1884) that they served as ornamental balustrades for the Rostra, this view has grown steadily in popularity until to-day it has almost the strength of a dogma. Yet there exists absolutely no proof that they were ever on the Rostra, and it is merely the charm of the idea, and the deservedly great influence of those who have suggested and adopted it, which have given it strength.

On the contrary, the presence of the Rostra itself on the relief might be adduced as a proof that the spectator must be at a point where he, too, could see the Rostra. Further, we must not forget the other side of these marble slabs, the wonderful *suovetaurilia*. It is very difficult to see what they are doing on the Rostra. Those who assume an idea of general purification forgot that the *suovetaurilia* is not an ordinary sacrifice, but is always connected with Mars.³ It is specifically his sacrifice, and whenever it is offered its purpose is to invoke his protection. Whenever it is used in connection with purification, it is an *ἀποτρόπαιον* that Mars may not destroy those things included in its magic circle.

¹ Observe that the arch is standing out of the relief, like the arch on the relief in the arch of Titus. This irregularity is an attempt to represent a right angle.

² *Reconstruction und Geschichte der römischen Rednerbühne*, Berlin, 1884, pp. 60 ff.

³ On the connection between Mars and the *suovetaurilia*, cf. Wissowa, *Religion und Kultus*, p. 349, esp. Anm. 6.

It is not impossible that these marble slabs formed part of a monument in honor of Trajan, erected by Hadrian, and standing somewhere near where the Tribunal Praetorium had formerly stood. But such a monument, connected with Mars or with the purification after the census, is difficult to find in the centre of the Forum, unless we can suppose that in connection with the Tribunal Praetorium itself the old association of the Praetor with Mars was still sufficiently strong to put the tribunal under the direct protection of Mars; this is of course taking it for granted that the Tribunal Praetorium continued under the Empire. If any of these suggestions be correct, the two slabs would have formed the front of the parapet with the opening between them (compare the arrangement of the Ara Pacis of Augustus), and the animals on each side of the opening would have been represented as walking toward the opening.

Finally, we may hazard the suggestion that the scene on Balustrade B, familiarly known as "The Emperor and Italia," and supposed by some to be a group of statuary, may have actually stood on the spot formerly occupied by the equestrian statue of Domitian. In that case the artist would have shown skill in the arrangement of his two scenes: Balustrade A with the procession of men preparing to burn the tokens of indebtedness at the foot of the state treasury, the temple of Saturn; Balustrade B taking place in that part of the Forum where subsequently the monumental group of "The Emperor and Italia" was erected.

But these are, of course, merely suggestions to be tested in the course of time. It seems tolerably sure, however, that wherever these slabs stood in the Forum, whether on the Rostra or elsewhere, they represented each of them a half of the Basilica Julia with the adjacent buildings.

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ROME, April 30, 1910.

American School
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INSCRIPTIONS FROM PRIVERNUM

THE inscriptions here published were lately discovered at Piperno in the course of visits I made there when studying the remains of ancient Privernum. Most of them certainly came from Piperno Vecchio, the Roman Privernum, in the plain below the present Piperno.

1. On a cinerary urn of white marble (Fig. 1)¹ in a wall of the rear balcony of the Casa Colandrea, Via S. Vito e Stello,

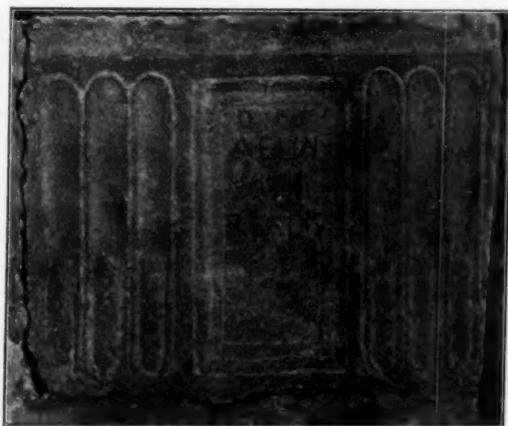


FIGURE 1.—INSCRIPTION FROM PRIVERNUM.

22, where Vincenzo Oliva copied it on March 25, 1885. This is near the old church of S. Vito, and the urn may have served as a holy water basin there, as did a similar urn bearing *C.I.L.* X, 6448, in the neighboring church of the Madonna della Stella.

¹ The photograph of this inscription is kindly furnished by Mr. J. H. Ten Eyck Burr.

Height of urn, 0.27 m.; width at top, 0.34 m.; at bottom, 0.325 m.; depth, about 0.29 m.; the panel with the inscription measures 0.11×0.21 m. On the right side of the urn are cut two crossed shields with elaborate decorations; similar ornaments are often found on sarcophagi. Letters of the inscription poorly cut; height in line 1, 0.015 m.; lines 2-4, 0.017-0.019 m.

D · M
A E L I N i.e., *Aelian(i)*
S O T E
R I A D I S

I can find no other examples of a name *Soterias*; *Soteris* is common, and in *Eph. Epigr.* VIII (1899), p. 136, No. 530, we have *Soteriae* used as the genitive of the cognomen of a certain Marcus Aemilius.

2. Upper part of the front of a cinerary urn of white marble, found in the Madonna di Mezzo Agosto at Piperno Vecchio, now in possession of Sig. Pietro Tacconi. Dimensions, $0.12 \times 0.07 \times 0.035$ m.; height of surface with inscription, 0.05 m. Good letters of the first century, 0.015 m. high in line 1, 0.011 m. in lines 2-3.

D · M
C L O D I A E · M · E T · O · I i.e., *l(ibertae)*
~~H E L P I D I~~

3. Lower part of white marble slab with mouldings, found at Piperno Vecchio, now in possession of Ispettore Giuseppe Jannicola. Dimensions, $0.135 \times 0.095 \times 0.03$ m.; height of surface with inscription, 0.03 m. Letters, 0.008 m. high.

G E L L I V S

4. Left portion of a *tabella ansata*, complete at bottom, of white marble, in the garden of Don Giulio Bianconi, where it was placed before August 12, 1896, by Vincenzo Oliva. Dimensions, $0.16 \times 0.095 \times 0.02$ m. Letters of the second century, 0.015 m. high.

H E D I A E .
C O N I V G I
E T · S V I S · O

5. Base of white marble, broken at right and bottom; same place as last, also brought there by Oliva. Dimensions, 0.32 × 0.43 × 0.23 m.; width of surface for inscription, 0.23 m. On the right side of the base is sculptured a patera, now partly broken, on the left side an *urceus*. Letters of the first century, badly worn; height in line 1, 0.025 m.; in the other lines, 0.02 m.

D . M
 L · IVNIO · // / L A S O
 I V N I A · P A V L A
 P A T R I
 B E N E M E R E *nti*
 F E C I t
 / / / / /

The *cognomen* in line 2 is quite uncertain; I can find no *cognomina* used with *Iunius* ending in *-asus*. The combination *Iunia Paula* apparently does not occur elsewhere, though we have *Iunia Paulina* in *C.I.L. V*, 5899, VIII, 11763.

6. Fragment of white marble slab, found at Rione S. Salvatore, near Piperno Vecchio, now in possession of Sig. Jannicola. Dimensions, 0.12 × 0.185 × 0.045 m. Letters of the second century, much worn, about 0.014–0.02 m. high.

/ V / / / / /
 - A / / / D V F . . u Ouf(entina)?
 E R O · Q V I D · F,
 E T · S I N E · F I N I
 C V M · S E N T I R I
 T r · L V C T I

This may be a fragment of a poetic epitaph.

7. Fragment of white marble slab, complete at bottom, in the garden of Don Giulio Bianconi, where it was placed before August 12, 1896, by Vincenzo Oliva. Dimensions, 0.12 × 0.18 × 0.05 m. Letters well cut, probably of the early third century, 0.04 m. high.

, E I V I
 S · I V L I

8. Fragment of white marble slab, found at Piperno Vecchio, now in possession of Sig. Jannicola. Dimensions, 0.10 × 0.18 × 0.035 m. Letters of the third century, 0.065 m. high.

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—
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CM

9. Fragment of limestone from a monumental inscription, seen by me in one of the mediaeval buildings north of the high road at Piperno Vecchio, March 17, 1910. Dimensions, 0.21 × 0.30 × 0.18 m. (broken at back). The complete letter is 0.195 m. high.

S—

10. On the south side of the high road, just inside the south side of the mediaeval wall of Piperno Vecchio, on November 16, 1909, I picked up a fragment of brick with a stamp of one horizontal line in raised letters, broken at each end. It reads L L A N/. Sig. Jannicola has in his possession a similar stamp found at Piperno Vecchio, complete at the right end, which reads, / L L A N/. I can find no record of this stamp in *C.I.L.*; note, however, the fragmentary stamp from Ferentino, known only from a manuscript copy by Giorgi, *C.I.L.* X, 8043¹⁰², L L A C I, and the stamp on a patera from Sardinia, also known only from a manuscript copy by Spano, *C.I.L.* X, 8056⁵¹⁰, L · L A N II.

11. Sig. Jannicola has also in his possession a piece from the bottom of an amphora, found at Piperno Vecchio, with the inscription A P O in raised letters on the side. Similar marks are found on Arretine ware, as in *C.I.L.* XIII, 10009¹⁰³, XV, 4990.

12. The bottom of a piece of an Arretine vase, owned by Sig. Jannicola, has stamped on it an inscription in raised letters.

D A P N I have not found this in *C. I. L.*
V E C I I

A study of several published inscriptions from Piperno has made it possible to correct the copies of the *Corpus* and the *Notizie degli Scavi* (1899, pp. 98–101) in many particulars, as follows:

Only a small part of *C.I.L.* X, 6439, the *Corpus* states, is now in existence; the complete inscription is known only from

a copy by Marini. I have discovered in the Galleria Lapidaria practically all the rest of the inscription, in the fragments already published as *C.I.L.* VI, 1578, 30553^{8, 20, 31}, besides an unpublished fragment in the same division as the last three,

which reads ^{A 1⁴} RIAN. The inscription as reconstructed may be represented as follows, letters still known only from Marini's copy being given in italics:

a: LARADIO ROSCIO
 RVFINOSATVRM
 NO·TIBERIANO⁶
 AVG RICV⁹TONIC¹⁰
 TRIVM VIRO¹¹ ST¹²
 BVS·IVDICANDISSE¹³
 VIRO·EQVESTRVM¹⁴ f sic
 TVRMARVM¹⁵ sic
 PRIVERNATE¹⁶ S¹⁷ PA
 TRO NO·DIGNISSIMO
 ETPRESTANTISIMO

a = *C.I.L.* X, 6439 = VI, 1695.

b = new fragment.

c = *C.I.L.* VI, 1578.

d = *C.I.L.* VI, 30553²⁰.

e = *C.I.L.* VI, 30553³¹.

f = *C.I.L.* VI, 30553⁸.

The correctness of Marini's copy in lines 7 and 8 is now proved. *C.I.L.* X, 6435 is still in S. Cristoforo, used as a base for a font. It is of about 200 A.D. (cf. *C.I.L.* VI, 32526 = 3884). There is a point at the end of line 4; in line 5 the final S is smaller than the other letters.

C.I.L. X, 6443, 6446, 6460 are still in the front wall of the building used as an osteria at Piperno Vecchio, much obscured by repeated coats of whitewash. *C.I.L.* X, 6443 is apparently of the second century; in 6460 the NT of line 5 form a ligature.

X, 6448 is in S. Maria della Stella (Madonna della Stella), not, as the *Corpus* says, in S. Maria della Scala. The letters are poor.

X, 6449, 6454, 6459 are still where the editor of the *Corpus* saw them. X, 6449 may date from the end of the first century.

In line 1 the **T** overtops the other letters; in line 2 the **E** does not seem a modern addition, as the *Corpus* would have it. X, 6454 is a columbarium inscription of the second century. X, 6459 may be of the first century; the words in line 3 are separated by a point.

X, 6451 and 6452 are in the places described. X, 6451 is of the first century, 6452 of the second.

X, 6455 is not now at Roccasecca and is apparently lost.

X, 6458 is now in the possession of Sig. Pietro Tacconi, but broken into two pieces. It dates from the first century.

I have also seen X, 6442, 6450, 8288, but there is nothing new to be added.

Of the 16 fragments mentioned in *Notizie degli Scavi*, 1899, pp. 98-101, I have found all but Nos. 3, 10, 11, 12. No. 1 is of a good period; points should be indicated in the copy after **I D** in line 3 and at the end of line 4. No 2 is late Republican; there are traces of a third line above the two given in the *Notizie*. No. 4 is certainly from a monumental inscription, for the letters are 0.09-0.115 m. in height. The letters of No. 14 do not necessarily indicate that it is Christian. In No. 15 accents stand above the first **A** of line 2 and the **P** of line 4.

The inscription recorded in *Notizie degli Scavi*, 1904, p. 53, is also at Piperno in the garden of Sig. Jannicola. The place where it was found, Ponte del Carciofo, is on the high road about a kilometre east of Piperno Vecchio, in the Rione S. Salvatore. With it was found a fragment of a statue of a woman.

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ROME, March 22, 1910.

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NOTE ON THE "MOURNING ATHENA" RELIEF

I WAS much interested in Miss Florence M. Bennett's article on "The So-called Mourning Athena," published in this JOURNAL, XIII, 1909, pp. 431-446. The elusive charm of the relief in question compels interest in everything that is written about it, and Miss Bennett's theory involves some points of considerable importance. Her main thesis is that the pillar in the relief is "the aniconic representation of Athena" (*l.c.* p. 433).

The first objection to be made would seem to be that the use of the word "pillar" at all in connection with this relief is not justified. Mr. Fairbanks (*A.J.A.* VI. pp. 410-416), whose article Miss Bennett takes as her point of departure, says near the beginning of his paper, "It is the received opinion that this 'pillar' represents an inscribed stele"; and, though he does not continue to use inverted commas for the word, it is clear that he only uses it as a convenient name for the object represented. His own conclusion is that "this type of pillar on vases ordinarily denotes the *meta* or goal-post of the race-course," and that it is here "the symbol of the palaestra"; but his paper is concerned more particularly with the figure of the goddess, while Miss Bennett deals with the object at which she is looking. This object seems very unlike any ordinary form of pillar; what the spectator sees is apparently the narrow end of a squared block of stone, somewhat roughly hewn, and the goddess is seemingly looking at the broad face of it, on which, according to the older theory, there would be an inscription. The stone may be the *meta*, as Mr. Fairbanks argues, though there seem to be many objections to his view; but it has absolutely no resemblance to any of the pillars appearing in representations of Athena, given by Miss Bennett in support of her

contention. All of these, with one possible exception—the Lansdowne relief—show pillars of rounded form. Of the pillar in the Lansdowne relief, Miss Bennett says (*l.c.* p. 436, Fig. 4), "the shaft is partially concealed by the shield, so that it is difficult to make out whether the pillar is square or circular in section. It is more probably the former." I should say, "more probably the latter," but the point is unimportant here, as the Doric capital makes it absolutely certain that a pillar, whether square or round, is depicted. May we not go further and inquire whether any aniconic representation of a deity can be quoted at all resembling the stone in this Mourning Athena relief? Do not all such *stone* representations belong either to the pillar type or to the class of baetylic stones, such as the omphalos at Delphi, of which Frazer gives a list in his note on Pausanias, X, 16. 3? The fact that Apollo *Ἄγνεις* was represented by a conical block of stone placed before the door is well known,¹ and these conical stones often appear on coins,² associated both with Apollo and with other deities, *e.g.* Zeus and Artemis. In my article on "The Cults of Olbia," (*J.H.S.* XXII, p. 258, Fig. 3), I quoted a late coin of Olbia, on which Apollo appears with his left hand resting on a pillar, and I suggested (*l.c.* p. 255) that this pillar represented the early cult image of Apollo, possibly brought with them by the early colonists from Miletus. There is nothing unusual in the presence of both an iconic and an aniconic representation of a deity in the same work of art, but is that deity ever Athena? Farnell (*Cults of the Greek States*, I, p. 321) says, "We have no proof of the prevalence of wholly aniconic images of Athena, and it has been shown that the religion of Pallas contained comparatively few 'survivals' of primitive thought and primitive ritual. The earliest monuments that have come down to us express ideas that are already relatively advanced." The words of Tertullian, quoted by Miss Bennett, according to Farnell, "seem to refer to some formless *δύαλμα* in Attica, of the existence of which we know nothing."

¹ Cf. *e.g.* Harpocration, *s.v.* *Ἄγνεις*: "Ἄγνεις δέ ἐστι κιῶν εἰς δῆν λήγων, διν λατᾶσι πρὸ τῶν θυρῶν" *ἴδεον δὲ εἰναι φασιν αἵτοντος Απόλλωνος.*

² See note in *Cults of Olbia*, *l.c.* p. 255, and Daremberg and Saglio, *s.v.* *Baetylia*, etc.

To sum up, then, the objections to Miss Bennett's view :

(1) The object in the "Mourning Athena" relief is certainly neither a pillar nor a baetylic stone, but a rough-hewn block, quite unlike any of the recognized aniconic representations of deities.

(2) We have no authority for the idea that Athena was ever represented in aniconic form, either by stone or pillar.

The real meaning of the relief I must leave for experts to decide, but there must be many who will not readily give up the older view that the head is bowed in mourning. The whole pose of the figure seems to mark dejection ; there is, perhaps, nothing in ancient or modern art which expresses the idea of grief with such poignant simplicity and artistic restraint.

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TWO FRESCOES FROM BOSCOREALE

LAST winter the Art Museum of Princeton University came into possession of two small wall-paintings which were acquired in Italy by Mr. Junius Morgan and were said to have come



FIGURE 1.—POMPEIAN PAINTING AT PRINCETON.

from Boscoreale. Through the courtesy of Professor Howard Crosby Butler, who presented them to the Museum, I am now able to publish them.

The smaller bit (Fig. 1) is about $4\frac{1}{2}$ inches in height, $4\frac{7}{8}$ inches broad in its widest place, and $\frac{7}{8}$ of an inch in thickness. The height of the mask painted upon it, measured along a line drawn through the axis of the nose, is $3\frac{9}{16}$ inches. The larger piece (Fig. 2), which is roughly a parallelogram in form, is about 8 inches broad and $6\frac{3}{8}$ inches high; its thickness is $1\frac{1}{2}$ inch. The standing figure at the left is $4\frac{1}{16}$ inches tall.

The first painting (Fig. 1) represents a beardless, tragic mask, with short, slightly wavy locks, crowned with a wreath of green laurel. The color of the face was originally a creamy flesh tint, but now, owing to abrasion, the red background against which the mask was painted shows through, thus giving a distinct flesh tint to the cheeks. In places the red is laid quite bare under the mask. Behind the mask, and running upward in a diagonal direction from left to right, is what appears to be the trace of a staff or of a thyrsus. Just what place in the decoration this mask occupied it is of course impossible to say, for the position of this motive in wall decorations is not constant.¹ But from the fact that the ground is red it may be surmised that it decorated the middle portion of a wall.

The second painting is much more interesting. On a black ground four female figures are shown participating in an offering at an altar. The latter, as can be seen, is a cylindrical structure, painted in greenish white to imitate marble. On it a fire burns briskly, with the smoke rolling off toward the right, and about it is hung a garland of yellow flowers. At the left a standing figure with a blue himation draping her legs and a white garment hung over her right arm holds with her left hand a circular object, possibly a phiale or even a wafer, over the altar. Behind the altar are two females wearing chitones the upper part of which is yellow and the lower (at least on the figure at the right) purplish. In the right foreground, with legs extended before the altar, reclines a figure wearing a white chiton which has slipped down from her shoulders and is held in place by a bluish cord that passes over the right shoulder. Her legs are wrapped in a red himation. She is watching the figure that is holding something over the altar. The most in-

¹ Cf. Niccolini, *Le Case ed Monumenti di Pompei*, Vol. II, Tav. XII, LI, LIV, LXVIII, LXXX; Vol. III, Tav. XII; Vol. IV, Suppl., Tav. XXVII.

teresting thing about this reclining figure is the fact that she supports a large, spirally reeded cornucopia filled with red fruit and green leaves. This object seems to lift this personage metaphorically from the midst of the others; and this, combined with the acts of the three others, namely, the offering and



FIGURE 2.—POMPEIAN PAINTING AT PRINCETON.

the playing on the tibia and the cithara, leads one to suppose that here we have a sacrifice, or rather offering, to some divinity, and that the divinity is the one represented with the horn of plenty. Who this goddess may be is difficult to say, for the attribute belongs to a number.¹ Instinctively one thinks of Fortuna as the one represented; but this goddess, although sometimes appearing as seated, is most often represented as standing.² The reclining posture, which we have here, is not usual. That it is Ceres, Juno, or Cybele seems hardly likely from the character of the figure; and Annona had hardly assumed an independent position apart from Ceres at this time.

¹ Cf. Pottier in Daremburg and Saglio, *Dict.* II, p. 1517.

² Roscher, *Lex.* Vol. I, pp. 1503 and 1504, *s.v.* Fortuna.

Even later she has the prow of a ship, and the modius, as well as the cornucopia, as her attributes.¹ That it may represent Bona Dea is possible; but even here proof cannot be adduced. The participants, at all events, in the rite which is being performed, are all women, and the worship of this goddess was distinctly a woman's cult.

Not the least interesting is the question of technique which arises in connection with these paintings. The smaller one, as already noted, shows a mask painted on a red ground, and the larger a group of figures thrown against a black background. In both instances there can be no question that the paintings were done over the ground, for in each the latter is visible where the portion of the top-painting has been worn off and allows it to show through. This background is executed in fresco; as to the mask, the figures, etc., painted over the backgrounds, however, there seems to be doubt as to the method in which they were executed. In the larger painting the figures are applied with a noticeably thick *pasto*—so thick, in fact, that it is easily felt by the fingers. In some places, as on the left arm of the figure at the left, the paint is applied so thickly that it rises in distinct ridges. As a rule when such overpainting occurs in fresco painting, it is held that this upper coating of paint is applied *in tempera*; that is, with colors mixed with egg as a medium. On the other hand, Donner von Richter² is responsible for the statement that layers of paint in fresco can be superposed. It must be said, however, that the character of some of the color leads to the belief that some stickier medium, such as egg, was employed rather than water, as in *buon fresco*. Encaustic³ is out of the question, for, according to Donner, this is never employed in wall-painting by the ancients. But, whatever the method may be, these little frescoes are extremely interesting as illustrating the technique of Roman wall-painting.

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¹ Roscher, *Lex.* I, p. 360.

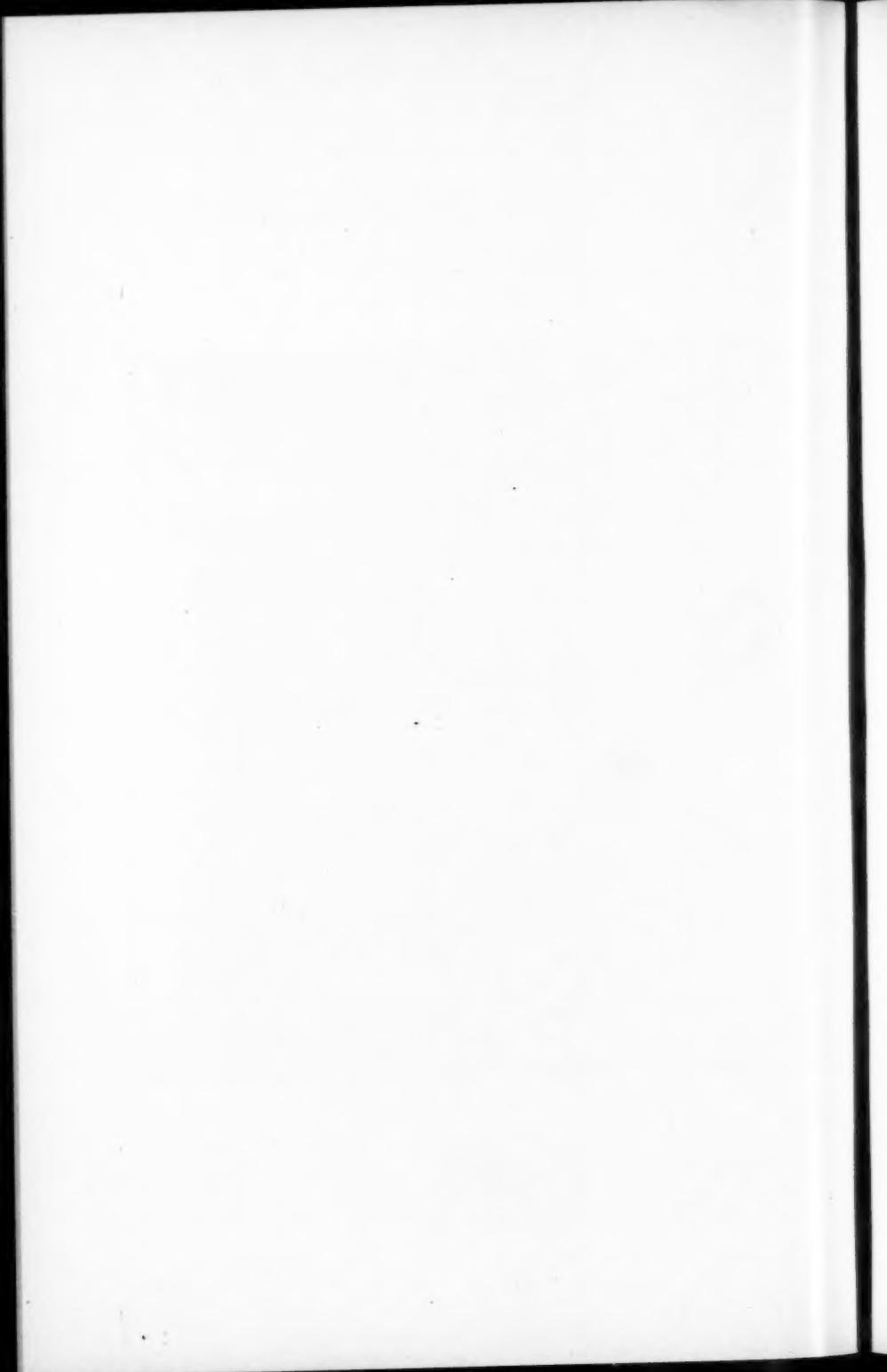
² In Helbig, *Wandgemälde der Städte Campaniens*, p. xxiv.

³ *Op. cit.* p. 1.

AMERICAN JOURNAL OF ARCHAEOLOGY, SECOND SERIES VOL. XIV (1910) PLATE VII



EPIPHANY AT TREVI BY JUSTUS VAN GHENT





TAPESTRY IN BOSTON, DESIGNED BY JUSTUS VAN GHENT

BOSTON UNIVERSITY
COLLEGE OF LIBERAL ARTS
LIBRARY

Archaeological
Institute of
America

NOTES ON JUSTUS VAN GHENT

[PLATES VII-VIII]

MANY northern artists worked during the fifteenth century in Italy. This is a strange fact, considering the abundance of great and second-rate artists that was peculiar to this country ever since the dawn of the revival of the fine arts, but there are several passages in literature that force us to recognize the high esteem which was accorded by the Italians of the Renaissance period to the work of Northern artists. Vasari, to be sure, speaks, with very few exceptions, in a tone of contempt of their work; but, notwithstanding the great authority the Arretine enjoyed, his word in this case does not reproduce the general opinion of his times. Most of these northern artists led an obscure existence in Italy, for the great artists of the Netherlands or Germany, like the Van Eycks, Memling, etc., found plenty of work in their own homes, and even if they undertook a journey in foreign parts, they turned back northward as soon as they could. Only mediocre artists left their country for any considerable length of time or even forever. As these wandering artists were not great individualities, their influence on Italian art was slight or entirely unnoticeable. Justus van Ghent forms an exception. This painter, although not one of the greatest names in the annals of the art of the Netherlands, was of more than ordinary talent. When Federigo of Montefeltre, Duke of Urbino, was looking for an artist to decorate his famous library, he chose Justus (or Josse; the Italians called him Giusto; his family name was Van Wassenhoven,¹ and not Sneyoet, as used to be asserted and still is asserted in Bryan's *Dictionary of Painters*), who was "peritissimo nel pitturare in

¹ According to the conjecture of M. Hulin.

olio." Master Justus painted then the 28 ideal portraits of great scholars of antiquity and early Christian times, together with those of great Italian poets, for this library, and perhaps some allegorical figures, which are, however, in my opinion, more likely by Melozzo da Forlì. He also painted a "Communion of the Apostles," this last being the only picture by his hand which still remains in Urbino, the others having been carried away after the bankruptcy of the della Rovere family, the heirs of the Montefeltre. Notwithstanding the high praise bestowed upon our master by Vasari, Justus' personality is at present very problematic. The intention of the following notes is to call attention to some hitherto unrecognized works by Justus and thus to throw some new light on this obscure figure in the history of art.

The material at one's disposal for the study of the art of Justus van Ghent has consisted until now of the above-mentioned 28 ideal portraits (14 in the Louvre, 14 in the Barberini Gallery, Rome), the portrait of Federigo Montefeltre with young Guidobaldo (Barberini Gallery), and the "Communion of the Apostles" in the Urbino Gallery. The allegorical figures of the Arts (now in Berlin, Windsor, and London) I consider, with Schmarsow (*Melozzo da Forlì*, 1886), Bode (Burckhardt's *Cicerone*, 9th ed.), and others, against Voll (*Geschichte der altniederländischen Malerei*, 1906, and *Repertorium für Kunsthissenschaft*, 1897), as the work of Melozzo da Forlì.¹ No literary document relating to Justus has come to us, except a few insignificant bills in Urbino (relating to the "Communion" picture and a lost gonfalone which Justus was to paint for a confraternity; the first picture was also painted for such a religious community), and a fragment in the Ghent archives. Although Giovanni Santi, the father of Raphael, must have known Justus, he does not mention him in his otherwise circumstantial chronicle of the life and deeds of Federigo. We do not know where or when he was born, where or when he died, whose pupil he was, or where else he had worked. The only established date from his life is, that in the year 1474 he finished the "Communion

¹ Repeated careful study of the Berlin panels convinced me, however, that they were executed with the help of Justus. The technique is his, although the design is Melozzo's.

of the Apostles" in Urbino. That he was court painter to Federigo we know from Vasari and from the fact that the duke had his portrait painted by him twice, once on the "Communion," and once for the library of the ducal palace in Urbino, this latter being now preserved in the Barberini Gallery in Rome. This is not much, but we can infer from it that Justus must have been of extraordinary artistic attainments,¹ for Federigo was not only a munificent patron of art, but also a man who understood how to choose his artists with remarkably good taste. We find among the list of artists employed by the court of Urbino in his day some of the most illustrious names of the early Italian Renaissance, Piero degli Franceschi, Melozzo da Forlì, Francesco and Luciano Laurana, and others. Justus was in Urbino at the same time when Piero and Melozzo were working there, and through them, I venture to say, he exercised an influence on Central Italian art that makes itself felt down to the early works of Raphael. Some of Piero's paintings show distinct reminiscences of Justus' types, as for instance the shepherds and St. Joseph in the London "Nativity," certain figures in the Urbino "Flagellation," and so on. It seems to have been proved that the hands of Federigo da Montefeltre in Piero's Altarpiece in the Brera gallery in Milan were painted by Justus. Several of Melozzo's pictures are still considered by highly respectable students as Justus' works, and his prophets in the dome of the Santa Casa in Loreto are evidently inspired by Justus' ideal portraits for the Urbino library.²

The indirect, but quite clearly recognizable, influence Justus exercised through these two great masters on the development of Central Italian painting might be further demonstrated by examination of the work of their pupils, Signorelli and Giovanni Santi, and the early pictures of Raphael. But this would take us too far. My intention is simply to point out the

¹ This is also confirmed by an examination of the "Communion." It is, in spite of some awkwardness in the figures, a highly original composition, excellent in the characterization of the apostles and the solemnity of expression, and majestic in its acridity. It has been blamed for disproportion in figures and space. This is a fault common to all early Flemish masters, not excepting Jan van Eyck.

² Mention should be made of the drawings of Raphael, in the Venice sketch book, after the ideal portraits of the Urbino library.

importance — singularly overlooked up to the present day — of Justus van Ghent in the history of art.

I have been so fortunate as to detect a painting (PLATE VII) in the municipal collection at Trevi, near Foligno, which bears the strongest resemblance to the work of Justus. This is a tempera picture on canvas in a very sad state of preservation, injured by fire and water. The frame, which seems to be the original one, has a semicircular crest, containing in the centre a roundel with Christ of the Resurrection and two flying angels on its sides, painted in the manner of the Foligno school of painting of the Quattrocento, and especially reminding one of Pierantonio Mezzastris. The attribution of this picture to Justus van Ghent seems to be justified on account of the great affinity of coloring, types, and drawing to the Urbino picture. It appears to be earlier in date, however, and it must have been painted soon after the artist's coming to Italy (he was called to Italy probably in the course of the year 1468). It is cool in colors and very precise in the drawing of the faces and hands. The features of the Madonna resemble the type of Hugo van der Goes. The stumpy hands with the flat finger-tips are the same as in Urbino. Not much can be said of the drapery, for it has been altogether robbed of its original aspect through the washing off of its modelling. The canvas is about 1.30 m. high, and 0.75 m. wide.¹ The Urbino panel was painted during the years 1469-1474, and it still shows the genuine Flemish characteristics of its author, unchanged by Italian atmosphere.²

¹ It should be remarked that the face of the magus kneeling to the right and the head of the Christ-child have been carelessly repainted. The round table with the chalice is also due to restoration.

² In the woman with a child on her right arm (near the group of men surrounding the duke), we evidently have to do with a portrait of Battista Sforza, the consort of Federigo da Montefeltre, a presumption which can be justified by a careful comparison of this picture with the portrait of the duchess painted by Piero degli Franceschi, and at the present time preserved in the Uffizi in Florence. The features are the same; notice the peculiar shape of the nose. The child is the son of Federigo, the future duke Guidobaldo, who was born in the year 1472. A comparison of the work of the two artists, Piero and Justus, shows also how the Flemish painter succeeded in conveying a more natural and winsome idea of the duchess than did Piero. The portrait by the latter looks almost stiff and lifeless in its coldness and severity, compared to that by the former. At the same time we must admit that Piero's work is broader and more monumental, and his composition more skilful and impressive. Justus' portrait is almost lost among the bystanders in the picture.

The Trevi picture is also absolutely pure in its Flemish appearance. There are several reasons which will induce one to fix its date before that of the "Communion of the Apostles." The latter shows greater skill in composition and is superior in the firmness of drawing. In the former, nothing has been preserved of the background from which the figures jut forth, and the star in a square on the top of the picture is a coarse addition of later times. This canvas shows, even more clearly than the picture in Urbino, the artistic parentage of Justus van Ghent, the studio of Hugo van der Goes. The type of the Madonna, as stated before, and that of Joseph are the creations of Hugo. This can easily be seen by comparison with works of this artist; for example, the Portinari Triptych in the Uffizi or the "Death of the Virgin" in the Academy at Bruges.

As another hitherto unrecognized work of Justus van Ghent I regard the large tapestry (PLATE VIII) recently given by Mrs. J. H. Wright to the Boston Museum of Fine Arts. This tapestry was reproduced in the *Bulletin* of the Museum for February, 1909. Although this reproduction is far from being satisfactory, it enables the attentive examiner to detect such peculiarities as to make it quite certain that the design for the tapestry was furnished by the same master who painted the "Communion of the Apostles." (The tapestry represents in four compartments, divided by eight columns with Gothic capitals, the Creation of Eve, the Baptism of Christ, the Nativity, and the Crucifixion; below these are figures of prophets and apostles.) The Christ's head is exactly the same as in Urbino. The treatment of the hair, falling in rich locks on the shoulders, is the same in this head as in that of the Christ in the Urbino picture and in the picture at Trevi (cf. especially the Magus kneeling to the left of the Virgin). There are no reasons for placing this design after the Italian journey of our master. One is rather inclined to place it before, considering the awkwardly crowded composition and the clumsy arrangement of the draperies. There is something youthfully fresh about the whole, in spite of the apparent faults.

It is a remarkable fact that this rare master preserved his national characteristics to such an extent as we have seen, amid an artistic environment that was one of the most brilliant the Ital-

ian Renaissance produced. Instead of taking from the famous artists that worked in Urbino, Justus gave to them, though nothing very great, so that we are still in a position to distinguish his traces. Some writers on art have endeavored to prove that the art of Justus van Ghent became, under the sunny sky of the South, a medley of Flemish training and Italian influences. As proofs of this assertion they mention the four Liberal Arts in London, Windsor, and Berlin. These pictures, however, no attentive student of the question will be able to retain as Justus' work; as has been said above, so far as invention and design are concerned, they are by Melozzo da Forlì.

MORTON H. BERNATH.

NOTE. — After a careful examination of all accessible photographs of Flemish pictures of the fifteenth century, I find that the type of Epiphany represented in the Trevi picture does not occur again in Flemish art. The same is the case with the Urbino panel. This is a very good proof for the authorship of Justus van Ghent, who must have painted the Epiphany in Italy, where he was not bound by tradition in any way. Every student of Northern art knows how the artists of the Netherlands, during the fifteenth century and the first decades of the sixteenth century, held to the traditional types in representing this scene. There is a "Rogier van der Weyden" type; there is a "Hugo van der Goes" type, "Memling" type, etc. Cf. Kehrer, *Die Anbetung der heiligen drei Könige in Literatur und Kunst*, Vol. II, 1908, Leipsic. On page 332 I mention the banner which Justus van Ghent painted for the Confraternity of Corpus Christi at Urbino as lost. After I wrote the preceding article, I found a canvas in Germany which I believe to be the banner in question. I intend to publish it with additional observations relating to Justus as soon as possible in this JOURNAL.

M. H. B.

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EXPLORATIONS IN SOUTHEASTERN UTAH
IN 1908

THROUGH the generosity of Colonel E. A. Wall of Salt Lake City the Utah Society of the Archaeological Institute of America is enabled to send an expedition into the field each summer to study the archaeological remains which are scattered thickly throughout the southern part of the State, and to make collections for the Museum of the University of Utah. It was my good fortune to be appointed Field Assistant for the year 1908, and put with Professor Byron Cummings of the University of Utah in joint charge of the summer's field campaign.

We were instructed by Dr. Edgar L. Hewett, Director of American Archaeology, to choose a region in Southeastern Utah, spend a couple of weeks in its exploration, and then select a site to be excavated during the remainder of the season. Having thus the freedom of action essential to successful field work, Professor Cummings and I met on June 11 at Monticello, Utah, and decided to explore the western tributaries of Montezuma Creek, in the southeastern portion of San Juan County, hoping not only to obtain some idea of the number and distribution of the prehistoric remains of that region, but also to find a ruin suitable for excavation.

We left Monticello on June 12, accompanied by Messrs. Neil Judd and Clifford Lockhart, students in the University of Utah, and James Hambleton, a cattleman, who was of great assistance to us as a guide. Later in the month, while we were engaged in excavations about Cave Springs, we were joined by Messrs. H. G. de Fritsch and Leavitt C. Parsons, both students in Harvard University. These gentlemen remained with us to the close of the season and, with Messrs. Judd and Lockhart, were constantly at the works, where they rendered valuable

assistance. I am indebted to Messrs. de Fritsch and Parsons for the map of the ruin given in Figure 2.

Our work closed on August 1.

Montezuma Cañon (see Fig. 1), or Montezuma Creek, as it is locally called, is a deep and rather narrow valley, which heads

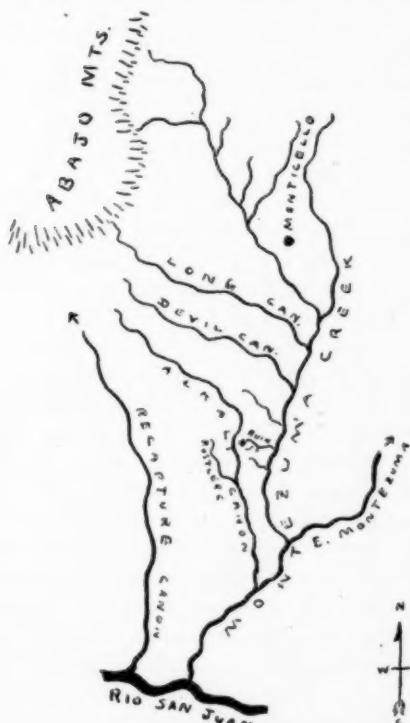
in the eastern slopes of the Sierra Abajo or Blue Mountains, and flows in a southerly direction some 45 miles before emptying into the San Juan River. Its eastern tributaries drain the long mesa which separates it from the McElmo - Yellow Jacket system, while on the west its upper tributaries all head against the eastern and southern slopes of the Abajos. The work of the expedition was confined to these upper western tributaries. According to the cattlemen of the vicinity the lower western cañons are short and contain few ruins.

Montezuma Creek itself contains running water throughout its whole course only in wet seasons. At other

FIGURE 1.—SKETCH MAP OF WESTERN TRIBUTARIES OF MONTEZUMA CREEK. SCALE: 1 INCH TO 12 MILES.

(* Marks the ruin excavated.)

times the stream sinks into the sand far above its mouth, and continues to the San Juan in the form of an underflow which reappears here and there in the form of "seep springs." Along



the course of the river there is a considerable growth of cottonwoods, but apart from these there is little vegetation in the cañon-bottom. The surrounding sandstone mesas, however, are thickly overgrown with dwarf cedar and piñon trees, replaced, as the country rises toward the Abajos, by spruce and yellow pine. The western tributaries are merely smaller replicas of the Montezuma itself, being, in most places, narrow, gorge-like cañons with barren, sandy bottoms and abrupt, cliff-like sides. None of them contain live water in their lower reaches during the summer except after heavy rains in the Abajos. By digging in the stream-beds, however, a small supply of rather alkaline water may usually be obtained. A few fine clear springs are to be found, chiefly in Alkali Cañon and its branches.

The first considerable upper western tributary of Montezuma Creek is Long Cañon. It heads against the Abajos and flows in a southeasterly direction, gradually becoming deeper and more barren, until it debouches upon a wide "bench" above Montezuma Creek. Devil's Cañon, the next valley to the south, follows practically a parallel course. Alkali Cañon, the largest western branch, again heads in the Abajos, but instead of flowing east during its whole course, soon turns nearly south, thence running parallel and close to Montezuma Cañon for some 15 or 20 miles before eventually entering it. This leaves a narrow mesa, called Alkali Ridge, between the two systems.

Because of the narrowness of this ridge, all the cañons emptying into Montezuma Cañon between the mouths of Devil and Alkali cañons are short. The majority of them are little more than draws and probably contain few ruins. The country in that region is, however, so split up and broken, and presents such a tangle of steep gullies, cliffs, and precipitous ravines, that many weeks would be necessary for its complete exploration.

We confined ourselves, therefore, to a study of Long, Devil's, and Alkali cañons; and also examined the ruins about the heads of Rustler's and Ruin cañons. The former is a small western branch of Alkali Cañon; the latter one of the largest of the short draws which drain Alkali Ridge and run into Montezuma Cañon.

The prehistoric remains of the region fall into three well-defined groups: (1) Cliff-dwellings, (2) Cañon-head dwell-

ings, and (3) Pueblos. Cliff-dwellings are built in caves or on ledges of the cliffs. Cañon-head dwellings are loose aggregations consisting of a considerable number of separate small houses, which are always formed about the abrupt ends of small cañons. Pueblos are more or less compact settlements built in the open, either on the mesa-tops or in the cañon-bottoms.

Cliff-dwellings were found scattered thickly throughout the whole region explored, from the heads of the tributary cañons to their mouths, and all along the course of Montezuma Creek itself. They were, indeed, the only buildings found in the greater part of Long and Devil's cañons and in the headwaters of Alkali Cañon. The two or three pueblos which we noticed in those regions were very small, and had every appearance of having been merely temporary affairs.

Two cañon-head groups were found in the branches of Ruin Cañon, one at the head of Rustler's Cañon, and two in small western tributaries of Alkali Cañon.

There are many large pueblos about the middle and lower reaches of Alkali Cañon and along the side branches of Ruin Cañon. There seems to have been a great centre of population along the whole middle portion of Alkali Ridge. The majority of these large ruins are situated on the mesa, the few which are to be found in the bed of Alkali Cañon itself being rather small.

CLIFF-DWELLINGS

Cliff-houses are built in every conceivable sort of situation, and therefore cannot, of course, be classified by shape or location. The simplest type is a small natural cave made into a single room by the addition of a wall closing in the front. Between this and such buildings as Cliff-Palace and Sprucetree House on the Mesa Verde, which are really great pueblos built in caves, and hardly dependent at all on the cliffs, there is an endless variety of types. None of the cliff-houses in the region here under discussion, however, are of any great size. The largest of them do not contain over eight or ten rooms, while the majority are merely single- or double-room structures, their roofs and back walls usually being supplied by the cave in which they are built.

In spite of their small size these cliff-dwellings are nevertheless interesting in that they show great ingenuity of construction and bear testimony to the adaptability and resourcefulness of their builders. Their protected situations, also, have shielded them from rain and snow, and so preserved for our study certain architectural features, such as doorways, beams, and roofing, which, in the pueblo ruins in the open, have long since disappeared.

The masonry of the cliff-dwellings of the Montezuma Cañon district is much inferior to that seen on the Mesa Verde to the east and in Grand Gulch to the west. The building-stones were here simply cracked out or picked up at random, and at best very rudely shaped. Many of the walls consist merely of small, irregular stones set in adobe with no attempt at coursing. The surfaces, both inside and out, are usually coated with adobe roughly laid on with a wooden implement or with the hand. Beyond this there is little plastering, although all cracks and crevices in the back or cliff walls of the houses are carefully plugged up with small stones or corn-cobs set in adobe. The floors of the rooms are seldom levelled or filled in to do away with irregularities, the natural rock being left without modification. Wooden beams are sometimes incorporated in the masonry, usually along the foundations of walls, for the purpose, probably, of bridging spaces which it would be difficult to span with masonry. This use of wood is very uncommon on the Mesa Verde and McElmo, but I have been told that farther to the west, in White Cañon and Grand Gulch, it is a very common style of building, and that some of the houses are almost entirely constructed of logs and adobe.

Another feature which is comparatively rare on the Mesa Verde,¹ but of which we found a fine example in a small house in Devil's Cañon, is the wattle-work wall. This wall was begun after the manner of a picket fence by placing upright and about a foot apart a number of slim cedar poles. These poles were then wattled together with twigs and osiers, making a fairly close and basket-like surface, which was then coated inside and out with adobe until the whole had a thickness of about three inches. This construction appeared to form an

¹ It occurs in a ruin in Fewkes Cañon and in Long House.

addition to the house, and to have been built at a later time than the other walls.

The cliff-dwellings of the region are, as a rule, very small and for the most part placed in caves so low that their roofs are also the roofs of the rooms. For this reason artificial roofs were seldom necessary, and as all traces of the roofs of the pueblos in the open have long since rotted away, our study of this feature of the architecture was limited to a single example offered by a cliff-dwelling in Devil's Cañon. This house, built on a ledge some 15 feet above the talus slope, consists of a series of seven or eight rooms, the westernmost of which are partly protected from the elements by a projection of the cliff overhead. The last room of the house is excellently preserved. It is 8 feet long by 4 feet wide, the back wall being formed by the cliff. At a height of 7 feet 6 inches from the floor a cedar beam 8 inches in diameter at the small end runs the length of the middle of the room parallel to the cliff. Its two ends are set into the masonry of the walls without projecting through. At right angles to this main beam and resting upon it are four smaller beams about 2 inches thick. Their outside ends are set in the masonry of the outer wall, the inner ends resting against the cliff, where they are held in place by daubs of adobe. Upon this second series, and at right angles to it, or parallel to the main beam, are laid slabs of split cedar of about the length and thickness of ordinary "shakes." They cover the entire roof, and a layer of adobe some 3 inches thick is placed directly upon them. There is no coat of cedar-bark between the adobe and the wooden part of the roofing, such as usually occurs in Mesa Verde houses. The top of the roof is carefully levelled off, the walls rising a few inches higher than its upper surface. A trapdoor leads from the room below to the open housetop. This door is 20 inches long by 15 inches wide and was coped about by flat stones, one of which is still in place. The other rooms of the building seem to have been covered in the same way, although they are in a so much more advanced state of ruin that the beams have nearly all rotted away.

For statistics as to doors also we are dependent on the cliff-dwellings, for in them alone are the entrances sufficiently well

preserved for measurement and study. We found them to differ little from those of the Mesa Verde and McElmo. They are rectangular, and an average of the many examples that we examined gives the following dimensions: height $22\frac{1}{2}$ inches, width 15 inches, thickness of wall 11 inches, height from floor of room 20 inches. They are usually fitted with a single large slab of sandstone for a sill, while the lintels are made either of a similar slab or of several small wooden rods sunk in the masonry of the jambs. A single rod about an inch below the middle of the lintel served as a rest for the stone slab which was used to close the door. The Tau-shaped door does not, so far as I know, occur in the western tributaries, although in Montezuma Creek itself we noticed one example.

What the purpose of such large numbers of cliff-dwellings could have been is more or less a puzzle. That they were of the same culture as the pueblos seems proved by the potsherds found in both. With the exception of two houses in Devil's Cañon, one in Ruin Cañon, and one or two in Alkali Cañon, none of them contain more than two or three rooms, while the great majority are nothing more than single chambers hardly large enough to hold a man, and usually built in caves so low that one cannot sit upright in them. Even the larger examples just mentioned contain only six or eight rooms, and even these groups do not contain the kiva or ceremonial room. The relation of the kiva to the religious and tribal life of the prehistoric people is as yet not clearly understood, but it nevertheless seems probable that no permanent dwelling-place could exist without it. For this reason the absence of the kiva from even the largest of the cliff-dwellings makes it seem improbable that these buildings were ever continuously inhabited. Whether they were lookout places, granaries, or shelters from which to watch the cornfields, are questions which it is better to leave open until more complete data as to their exact topographical situation and their relations one to another and to the larger pueblo groups can be collected.

CAÑON-HEAD GROUPS

The cañon-head groups differ, as has been stated above, from the pueblos chiefly in being scattered aggregations of small

houses, rather than many houses or groups of rooms brought together to form a more or less compact, or at least contiguous, whole. The component buildings, none of which are individually of any great size, form, nevertheless, collectively a considerable group. In at least three cases, *i.e.* at the head of Rustler's Cañon and in the two branches of Ruin Cañon, they are only a few hundred yards distant from large pueblos. This fact suggested to us that they might have been block-houses or watch-towers to guard the springs which at one time certainly existed directly below the buildings and which must have formed the chief water supply of the near-by pueblos. A fourth group, although a small one and not directly at the head of a cañon, guards Cave Springs, a locality which, from its abundant supply of water and its propinquity to several large ruins, must have been strategically very important.

Further evidence that tends to strengthen the theory that these structures were fortifications rather than regular dwelling-places is offered by the fact that they do not often seem to contain kivas, have no well-defined burial places, and are almost all built on the edge of the rim-rock, on the tops of large boulders, or in other easily defensible places. They are now so badly ruined, however, that little can be said of their original ground plan or architecture. Excavation would conclusively prove whether or not they are of the same culture as the other remains of the region. From the potsherds found about them there seems no reasonable ground for supposing them to be the work of a different people or a different period.

PUEBLOS

The larger pueblos are nearly all to be found on the tops of the cedar-covered mesas between the cañons. We mapped over twenty good-sized groups in a small section of Alkali Ridge alone, as well as a very large settlement above the head of Rustler's Cañon. These pueblos are so badly ruined that they are now merely low mounds thickly strewn with fallen building-stones and heavily overgrown with sagebrush and greasewood. They are usually situated on the crest of a ridge some distance back from the ruins of the cañons, thus occupying the highest

ground in the immediate vicinity with a view out over the cornfields that must once have surrounded them.

The smaller pueblos always seem to have consisted of a single or double row of rooms running roughly east and west, with one or more kivas, which appear as shallow circular depressions 15 or 20 feet across, lying just to the south of them. To the south of the kivas again is found the cemetery, a low mound thickly covered with potsherds. The larger ruins are merely multiplications of the unit just described, with a correspondingly greater number of kivas and cemeteries.

As the burial mounds are unfortunately quite obvious, they have been much pillaged by "pot-hunters," relic-seekers, and other vandals, who, digging carelessly, have broken fully as much as they have recovered, and who have also entirely destroyed the skeletal remains. We were fortunate, therefore, to find for our excavation a large ruin with two burial mounds, one of which had been only partially dug over, while the other one was practically untouched.

This pueblo, quite typical of the larger examples of its class, is built upon a cedar-covered ridge some 200 yards from the head of one of the terminal branches of Ruin Cañon. At that point there is a large cañon-head group, which must have protected the water supply for the community and was perhaps built for that purpose. The pueblo itself is a straggling structure of many wings and additions, 500 feet long and, at its widest part, about 300 feet across. The wings, it will be noticed (Fig. 2), run for the most part east and west; the kivas lie to the south of the two largest lateral wings.

We made our camp at Cave Springs, a mile and a half west of the ruin. The water of that spring is fresh, cold, and abundant, and there is ample feed for a few horses in the cañon below. We remained at this ruin for nearly five weeks, laying bare seventeen rooms and three kivas. We also completely dug over the two burial mounds and spent several days on the mounds of two small ruins to the east.

The task of excavation was slow and arduous, as we were unable to secure proper picks to pry out the quantities of tightly packed fallen stones which filled the rooms and kivas; and having only one wheelbarrow we were often forced to handle

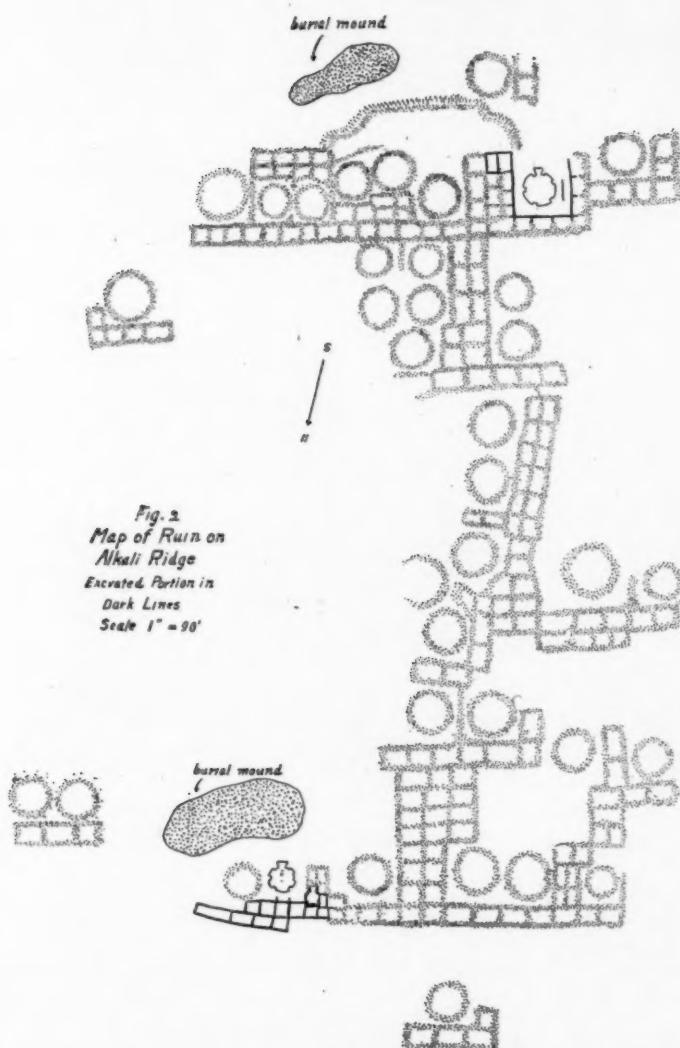


FIGURE 2.—PLAN OF RUIN ON ALKALI RIDGE.

our back dirt two or even three times. The results were, nevertheless, fairly satisfactory; we procured about four hundred museum specimens, among them thirty pieces of unbroken pottery, besides many pieces in fragments, which Professor Cummings has since successfully restored. We also recovered a considerable series of crania and other skeletal remains. A report on these last by some competent somatologist will, we hope, be presented at an early date.

Digging was begun at the east end of the northernmost wing (Fig. 3), and here we occupied ourselves for nearly two



FIGURE 3.—SOUTHEAST END OF NORTH WING.

weeks in clearing rooms and kivas. We not only emptied the rooms themselves, but ran trenches all along the outside of the house, laying bare the walls to their foundations. Even in the best preserved sections these walls did not stand, when excavated, to a height of over 4 feet, but such large quantities of fallen building-stones were present that it seems safe to assign a height of two stories to the entire building. On the other hand, its narrowness throughout argues against the former presence of more than two stories; so that we seem to have here a fairly low and much spread-out structure which must have been

quite different in appearance from the more common, terraced type of pueblo, which was compact in ground plan and rose to a considerable height. Such a village as the one under discussion could not have been easily defended.

The need for defence, apparently not so keenly felt here, was met in the Mesa Verde district, in the Cañon de Chelly, and elsewhere, by building in caves and on ledges difficult of access and easily defensible; while the pueblos of the McElmo were placed upon the edges of precipitous rim-rocks, their otherwise unprotected mesa or back wall being high and without ground-floor doorways.¹ In the Chaco Cañon, as well as in other parts of the Southwest, pueblos, where built in the open, are made safe from marauders by their compact form. In this case, however, the buildings are in no way protected by the configuration of the land, and the various component wings are so loosely strung together that no combined resistance to a sudden attack could have been made.

Living-rooms. — The excavation of the living-rooms gave very little insight into the minor features of the architecture of the pueblo. As only the lower courses of the walls were standing, we were unable to recover any evidence as to the system of roofing or the method of door construction, while the floors could only here and there be made out. They seemed to be, as usual, of hard-packed adobe. The plastering, too, had almost entirely disappeared from the walls.

The rooms were fairly uniform in size, averaging about 10 feet long by 5 feet wide. The easternmost chamber, however (Fig. 4), which had apparently been used as a granary, was longer than any other that we observed (23 feet). A violent conflagration had raged in this room, oxidizing a large quantity of corn on the cob. The heat of the fire had been great enough to vitrify, and in some places even to turn into a sort of iridescent slag, parts of the adobe of the walls and ceiling. Fragments of black-and-white pottery had been burned to a reddish yellow color, the black paint becoming a rich brick-red. The body of the ware was greatly hardened and in spots vitrified. Such conditions as this may possibly account for the rumors

¹ S. G. Morley, 'The Excavation of Cannonball Ruins,' *American Anthropologist*, Vol. X, N.S. 1908, p. 597.

which one hears in the Southwest of the finding of cliff-dwellers' remains imbedded in volcanic ash or lava, rumors that are sometimes quoted to prove the immense age of the prehistoric period.

The masonry throughout the pueblo is much inferior to that of the buildings of the McElmo and the cliff-dwellings of the Mesa Verde. Little attempt had been made to shape the stones,

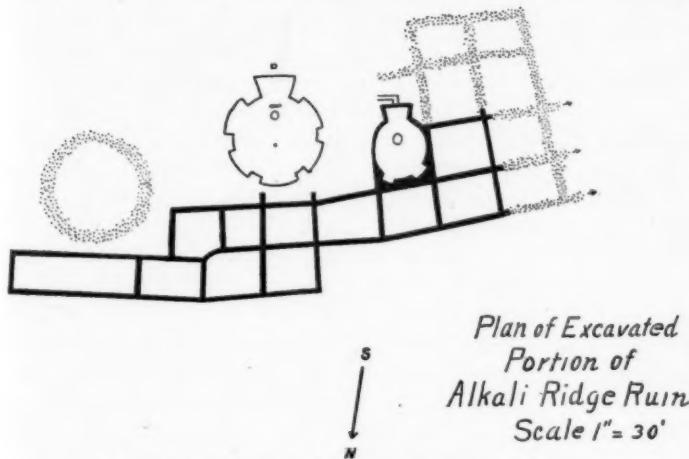


FIGURE 4.—PLAN OF EXCAVATED PORTION OF RUIN.

the rough blocks and fragments, quarried in the near-by cañon, being merely hammered or cracked out and laid up in adobe with scarcely a semblance of coursing.

In several places cedar posts were incorporated in the lower parts of the walls. They were driven several feet into the ground, their upper ends sunk in the masonry. The lower parts of these stakes had been sharpened by fire, their charred portions and the marks of their bark in the adobe of the walls being usually the only evidence of their former presence. All roof beams and other objects of wood were reduced, unless charred, to mere reddish streaks in the earth.

The finds in the living-rooms were very meagre. Because of their extreme dilapidation and from the fact that no "mano" or "metate" were unearthed in them, it seems not unlikely that

that portion of the pueblo had been deserted and all such utensils moved to some other place.

Kiva.—It will be seen by consulting the plan of the pueblo (Fig. 2) that its forty or more kivas are very evenly distributed among the rooms in a proportion that may be roughly estimated at one kiva to seven ground-floor chambers. The majority of the kivas lie to the south of, and immediately contiguous to, the groups of rooms to which they belong. In making the plan, only large and well-marked circular depressions were called kivas, and it is possible that there exist many small examples of the intramural type (Figs. 4, 6, and 7), which, before excavation, could not be distinguished from an ordinary dwelling-room. The greater number of the ceremonial rooms of this ruin, and, so far as we could determine, of all the sites in the Montezuma drainage, are structurally quite independent of the buildings to which they belong. They are not enclosed in a square or rectangular walled-up space, as was found by Mr. Morley to be the case on the McElmo,¹ nor are they set among the rooms as they are in the cliff-dwellings of the Mesa Verde.² This fact is quite in accord with the straggling and loose-knit plan of the Alkali Ridge ruin.

As is the rule in the San Juan, the kivas are subterranean. They are round, and, like those of the neighboring regions, have a plain lower wall some $3\frac{1}{2}$ feet high, surmounted by six pilasters which divide the space above the lower wall into six niches (Fig. 5). These pilasters also served to carry the entire weight of the roof.³ They are usually about $2\frac{1}{2}$ feet high, thus making the ceiling of the chamber approximately 6 feet above the floor. The outside of the roofs of these subterranean rooms apparently formed a kind of plaza, which was on about the same level as the floors of the living-rooms. There is a slight inward trend of both walls and pilasters. The kivas here average about 16 feet in diameter.

Of the six niches or recesses, which are divided from each other by the pilasters, the south one is always the deepest and

¹ *Loc. cit.*, p. 600, and pl. XXXVII.

² J. W. Fewkes, *Bulletin 41, Bur. Am. Ethnol.*

³ W. J. Fewkes, 'Ventilators in Ceremonial Rooms,' *American Anthropologist*, N. S. Vol. 10, 1908, p. 385.

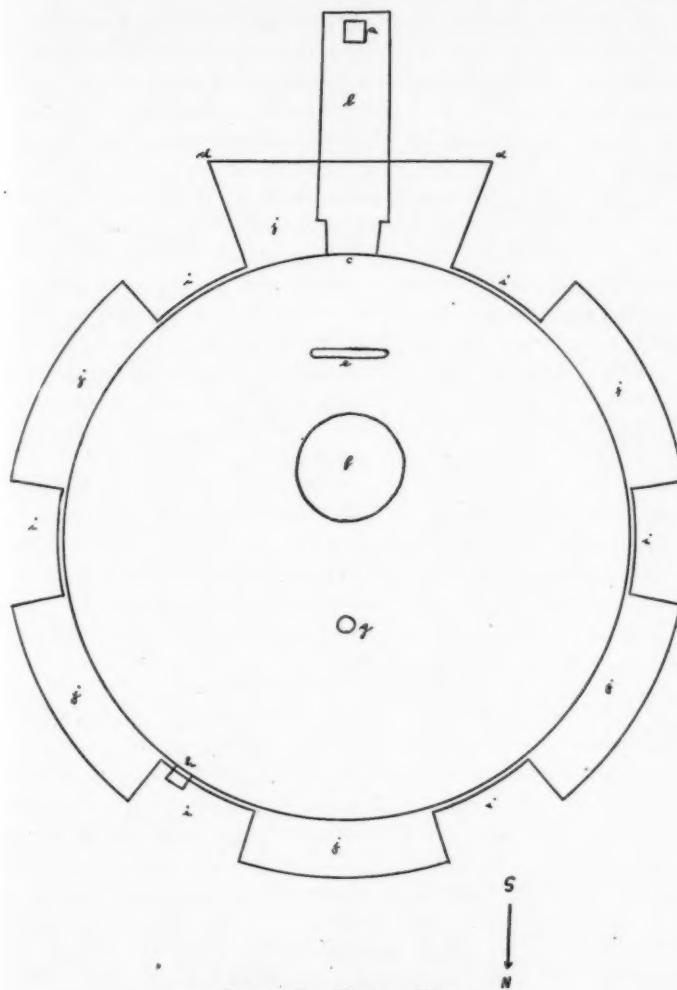


FIGURE 5.—NORMAL KIVA.

broadest (Fig. 5, *d d*). The other five are almost exactly of the same width and depth. Under the south recess there runs a horizontal passage $2\frac{1}{2}$ feet high by $1\frac{1}{2}$ foot wide, roofed with planks of split cedar (Fig. 5, *b*). Its floor is a continuation

of the floor of the kiva. At a distance of 7 feet from the lower wall, this passage turns upward at right angles and, rising vertically just behind the back wall of the south niche, it emerges from the ground at the level of the kiva roof. The vertical passage grows quickly smaller as it rises, until at its mouth it is less than a foot square (Fig. 5, *a*).

In front of the opening of the horizontal passage into the kiva and about $2\frac{1}{2}$ feet from its mouth, there is an upright slab of stone 2 feet wide, $2\frac{1}{2}$ feet high, 2 inches thick.¹ (See Figs. 5, *e*, 8, and 9.) A line drawn from the entrance of the passage through the centre of the slab and continued across the floor would bisect the other two principal features of interest; namely, the fireplace and the "sipapu." The firepit is a round depression in the floor 3 feet in diameter and 8 inches deep, filled with tightly packed wood ashes. The "sipapu" is a small hole in the floor, barely large enough to admit the hand and 5 or 6 inches in depth. It lies about midway between the fireplace and the back or north wall of the kiva. (See Figs. 5, *g*, and 9.)

The purpose of these various features of kiva construction is very difficult to determine. There seems, however, to be both a ceremonial and a utilitarian object served by each of them. For instance, the six recesses have been taken by some students of the subject to represent the six cardinal directions which are recognized by the pueblo peoples of to-day; *i.e.* north, south, east, west, the zenith, and the nadir. This may very well be the case, but the six buttresses which separate the said niches are strictly utilitarian in purpose, in that they support the entire weight of the roof in a way most economical of space and masonry.

In the case of the passage also we are confronted by the same difficulty. It is obvious, from the extreme smallness of its ascending part, that it could not have been used as an entrance to the chamber; while its position, and the fact that its walls are seldom smoked, proves that it could not have been a chim-

¹In other localities this slab is sometimes replaced by a masonry wall of about the same height and width, and in a few cases by a low curving wall. See Fewkes, *loc. cit.*, also Morley, *loc. cit.*, p. 602, and Nordenstkiold, *Cliff Dwellers of the Mesa Verde*.

ney. It has been called both a "ceremonial entrance" and a "ventilator."

Without entering into a discussion on this subject, which has been most efficiently treated by Dr. Fewkes in a recent paper,¹ in which he puts forward the ventilator theory, it may be remarked that when the roof is in place, and a fire is lit in the fireplace, the passage *does* act as a ventilator and aids very greatly in keeping all the air of the chamber fit to breathe. On the other hand, the highly specialized form of the passage and its almost invariable southern orientation have led others to believe that it may have had some ceremonial significance. It seems probable that the truth is to be found in a compromise. Ceremonial observances might easily connect themselves with so necessary a part of the kiva, and this process once started, religious conservatism would tend to fix and specialize features which were primarily utilitarian.

The slab of stone or masonry wall, which is found between the passage entrance and the firepit, has been called both an "altar" and a "deflector." Here again it seems that the use of this object may have been twofold: it no doubt tended to spread the fresh air which came down the ventilator, and it also corresponds closely to the altars of modern Rio Grande Pueblo kivas. There is nothing incompatible in the two functions.

The purpose of the firepit is sufficiently obvious, but the small opening in the floor, which, following Dr. Fewkes, I have called the "sipapu," is more puzzling. This little hole, often made by sinking the neck of a broken olla in the adobe, is a very constant feature, not only here, but also in other parts of San Juan. In the modern Hopi kivas, a hole, not unlike these ancient examples, is called the "sipapu" or symbolical entrance to the Underworld, and plays an important part in many ceremonials.

Under the northeast buttress or pilaster of all the ceremonial rooms examined there is let into the lower wall a small niche or cupboard, about 10 inches long by 6 inches high and 10 deep (Fig. 5, *h*, and Fig. 6, *h*). This may be seen in the photograph (Fig. 9); on the left another photograph (Fig. 7) also shows clearly the difference in level between the

¹ Fewkes, "Ventilators in Ceremonial Rooms."

regular kivas and the living-rooms. The kiva at the left of the picture is an intramural example built on a higher level.

The masonry of the kivas is superior to that of the living-rooms, the stones being better shaped and laid up in fairly regular courses. In one feature the kivas here differ markedly

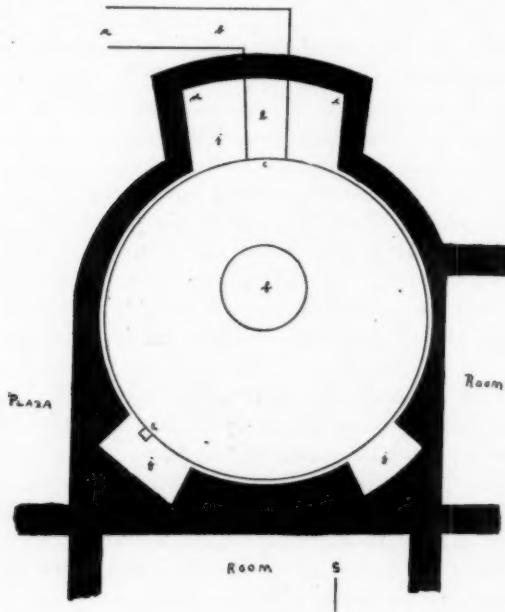


FIGURE 6.—INTRAMURAL KIVA.

from those to the east. On the Mesa Verde and McElmo an excavation was made and a kiva was built in it—a solid structure of stone. Here, however, it is really little more than a hole in the ground, the lower wall and the six pilasters which support the roof being merely a veneer of masonry on the naturally close-packed earth. The backs of the recesses, except the large southern one (Fig. 8), the floors of all of them, and the sides of the pilasters are left in the native clay soil. This was kept from caving in by baking it with fires to the consistency

of soft brick, and then coating the hardened surfaces with many layers of plaster. This process was apparently perfectly efficient, as the back walls of the recesses are still firm and strong, and, although quite unsupported by masonry, have not in any case given way or crumbled in. Upon removal of a section of the lower wall, which was not over three inches thick, the ground behind it also was found to have been baked in the same manner as the upper parts. This had been done before



FIGURE 7.—INTRAMURAL KIVA.

the building of the wall. Such a method as this could only have been employed in a clayey soil, and is probably a purely local development.

Intramural Kiva.—The room somewhat to the right of the middle in the plan of the building (Fig. 4) and shown at the left of Figure 7 was found, on excavation, to be a kiva (Fig. 6). It is somewhat smaller than the other ceremonial rooms, having a diameter of 21 feet 6 inches. It also differs from them in that it is built above ground, on the level of and directly among the living-rooms, and lacks several characteristic features.

In common with the others it has the circular shape, the large south recess with the horizontal passage under it, the fireplace and the small niche in the lower wall. On the other hand, it differs from the others in that it is built in a square chamber, having been made round by filling in the corners with masonry; it has only two recesses besides the southern one, and it did not contain either altar or "sipapu." The horizon-



FIGURE 8.—INTERIOR OF KIVA.

tal passage, moreover, opens to the side instead of in a vertical direction. (See Figs. 4 and 7.)

How many other ceremonial rooms of this nature may be scattered through the pueblo it is impossible to say, but it would seem that the religious needs of the people must have been amply cared for by the great number of kivas in the open.

Burial Mounds.—The burial places of the community lay to the south of the south and north wings. They were both well-defined, low mounds of dark earth, easily distinguishable from the reddish adobe soil of the mesa. The southern mound had been somewhat dug over by pottery hunters and the burials much disturbed; bones and broken pottery lay everywhere on

the surface. We nevertheless examined the place carefully, recovering a fair number of crania and a few pieces of pottery. The north mound, however, had been left practically undisturbed, and here we uncovered twenty-eight burials and with them a considerable amount of pottery, ornaments, and other objects. There must have been other cemeteries in the neighborhood of the pueblo, as the number of skeletons found by us



FIGURE 9.—INTERIOR OF KIVA.

was quite disproportionate to the size of the settlement. Diligent search and much fruitless trenching failed, however, to hit upon them.

The north mound, which was about 80 feet long and 30 feet wide, was perhaps 5 feet thick at the centre, sloping off at the edges to the level of the surrounding ground. It was composed of dark earth, quite distinct from the red soil of the neighborhood. This darkness appears to come from the admixture of organic substances such as would naturally be present in the refuse of the village. Broken and split bones of animals and birds, quantities of charcoal, and numberless potsherds were everywhere present, particularly in the upper

layers of the mound. From this it would appear that the cemetery was also used as a refuse heap, and owes, perhaps, the greater part of its mass to débris from the pueblo.

The burials were almost all placed just upon the top of the red subsoil; several, however, were found in shallow depressions scraped in it, but in no case was the body covered by the red soil. No definite orientation of the burials was observable. The bodies were placed here and there without relation one to another. The majority of the individuals were laid on the



FIGURE 10.—GRAVE AND CONTENTS.

side, the knees drawn up toward the chest, the elbows flexed on the knees, and the hands placed in front of or beside the face (Fig. 10).

Pottery was buried with about one skeleton in five, but where it was present there were enough pieces to bring the general average up to about one piece for every skeleton unearthed. One burial had no less than ten pieces placed with it in the grave.

When one or two pots only were deposited with a body they

were set in front of the face; if more were to be interred, they were usually laid beside the hips, either in front or behind; while with the skeleton mentioned above, the pieces were disposed in such a way as nearly to encircle the body, several large bowls being nested together in front of the face. We found no example of the practice, common in certain localities, of inverting a bowl over the head.

Articles of personal adornment of an imperishable nature were limited to beads made of olivella shells and of sections of hollow bone. Such objects were taken from the earth below the head and shoulders, indicating their use as necklaces. A few bone scrapers and chipped knives were uncovered in the neighborhood of skeletons, but not close enough to warrant definite association. No arrowheads, club-heads, or axes were found in the immediate vicinity of any burial. From this it would seem unlikely that weapons were placed with the dead.

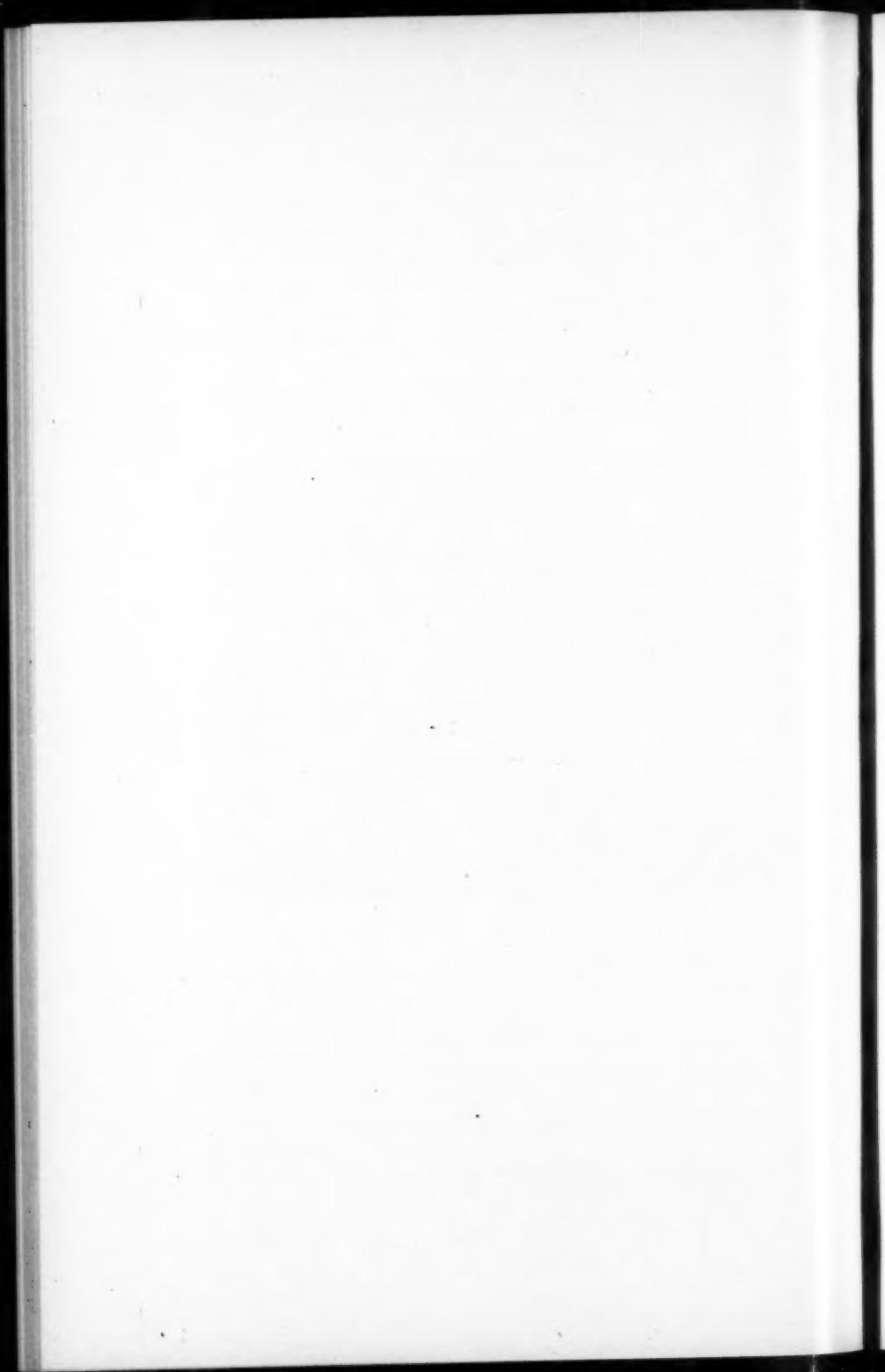
Collections. — The collections from the excavation consist of skeletal remains, pottery, vessels and pipes, ceremonial objects of stone and pottery; bone awls, skin-scrapers, and needles; beads of shell, bone, stone, and pottery; stone axes, polishing stones, sandal stones, and various kinds of clipped implements such as knives, spear-heads, and projectile points.

Because of the exposed position of the ruin there were recovered no objects of basketry, textiles, or wood. No trace of metal was found.

The material is now deposited in the Museum of the state University of Utah. A report upon it will be presented as soon as I am able to visit Salt Lake City and study the collections adequately.

A. V. KIDDER.

PEABODY MUSEUM,
CAMBRIDGE, MASS.



1910
January — June

ARCHAEOLOGICAL NEWS¹

NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS

WILLIAM N. BATES, *Editor*

220, St. Mark's Square, Philadelphia, Pa.

GENERAL AND MISCELLANEOUS

DENMARK. — **Roman Graves at Lolland.** — Four Roman graves were unearthed on the island of Lolland, Denmark, containing many ornaments and other objects which have been placed in the National Museum at Copenhagen. (*Röm.-Germ. Kb.* III, 1910, pp. 22 f.)

MACEDONIA. — **Prehistoric Mounds.** — In *Ann. Arch. Anthr.* II, 1909, pp. 159–164 (pl.), A. J. B. WACE and M. S. THOMPSON report briefly upon the mounds near Salonica, at Pella, at Palatitsa, and in the district of Pydna, Macedonia, examined by them in the summer of 1909. They are of three kinds: 1. small, steep, and conical mounds, presumably burial tumuli; 2. tall, steep, and oval mounds with flat tops, which are prehistoric sites; 3. tall, steep, and large mounds with flat tops having an area of several acres, which are the sites of Greek cities. The position of forty-nine different tumuli is recorded.

NECROLOGY. — **Heinrich von Geymüller.** — Baron Heinrich von Geymüller, whose most important work is *Die Baukunst der Renaissance in Frankreich* (2 vols., 1898–1901), died at Baden Baden in December, 1909, aged seventy. He was a distinguished connoisseur of the architecture of the Renaissance. (S. R., *R. Arch.* XV, 1910, p. 168; *Chron. Arts*, 1910, p. 6.)

Osman Hamdy Bey. — The death of Hamdy Bey has deprived Turkey of a distinguished figure in the field of archaeology. Born at Constantinople in 1842, the son of the Grand Vizier, Edhem Pasha, at the age of fifteen he went to Paris, where he studied painting under Gustave Boulanger. He attained considerable proficiency as a painter and was a frequent exhib-

¹ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor BATES, Editor-in-charge, assisted by Professor C. N. BROWN, Miss MARY H. BUCKINGHAM, Mr. L. D. CASKEY, Miss EDITH H. HALL, Mr. HAROLD R. HASTINGS, Professor ELMER T. MERRILL, Professor FRANK G. MOORE, Professor CHARLES R. MOREY, Miss M. L. NICHOLS, Professor LEWIS B. PATON, Professor A. S. PEASE, Professor S. B. PLATNER, Dr. N. P. VLACHOS, and the Editors, especially Professor MARQUAND.

No attempt is made to include in this number of the JOURNAL material published after June 30, 1910.

For an explanation of the abbreviations, see pp. 140, 141.

itor in Paris. A large canvas of his hangs in the University Museum in Philadelphia. In 1881 he became director of the Imperial Ottoman Museum, which he made one of the great museums of the world. The present Turkish law relating to antiquities was due to him. In 1882 he founded a School of Fine Arts in Constantinople, becoming its director and continuing his connection with it through life. Among his publications are *Architecture ottomane*, and, with T. Reinach, *Une nécropole royale à Sidon*. (C. R. Acad. Inscr. 1910, pp. 71-75; Arch. Anz. 1910, p. 1; also, with portrait, R. Arch. XV, 1910, pp. 407-413.)

John H. Haynes.—John Henry Haynes died of tuberculosis, at North Adams, Massachusetts, June 3, 1910. He was born in 1849, and graduated at Williams College. From 1892 to 1896, and from 1898 to 1900, he took part in the Babylonian Expedition of the University of Pennsylvania to Nippur, and for a portion of the time was in charge of the actual work of excavation. (Boston Herald, June 3, 1910.)

Henry d'Arbois de Jubainville.—In *R. Arch.* XV, 1910, pp. 267-286 (portrait), is a very appreciative account of the life and career of Henry d'Arbois de Jubainville (December 5, 1827-February 26, 1910), by S. REINACH. His work in the fields of prehistoric and mediaeval archaeology and history was of great importance.

Matthäus Much.—Matthäus Much, vice-president of the Anthropological Society of Vienna, died at Vienna, December 17, 1909, aged seventy-eight years. He was the author of works on prehistoric times and antiquities. (S. R., *R. Arch.* XV, 1910, p. 168.)

Ivan Alexandrowitch Weselovsky.—The director of the museum of the Hermitage, Ivan Alexandrowitch Weselovsky, died at St. Petersburg, November 9, 1909, aged seventy-four years. He was not a man of learning by profession, but a man of taste. (S. R., *R. Arch.* XV, 1910, p. 168.)

SERVIA.—**Miscellaneous Antiquities.**—In *Jh. Oest. Arch.* I. XII, 1910, Beiblatt, cols. 147-204 (27 figs.), N. VULIĆ publishes a number of miscellaneous antiquities found by him in Servia, Dalmatia, and Montenegro, including seventy-four Latin inscriptions.

TURFAN.—**The Third German Expedition.**—In *Z. Ethn.* XLI, 1909, pp. 891-916 (22 figs.), A. GRÜNWEDEL reports on the third Turfan expedition. Numerous Graeco-Buddhistic tempera paintings were found, largely in dug-out caves and holes, which the author describes and classifies, according to their nearness to late classical influence, in five groups: (1) the Gandhara style; (2) the style of the knight with the long sword; (3) the old Turkish style; (4) the late Turkish style; (5) the Lamaistic style, which reaches as late 1400 A.D. The paintings in styles (1) and (2), painted usually in three tiers of nearly square pictures on the four walls of underground chambers, are most beautiful and impressive. Above the Buddha-preaching scenes is often found a frieze representing a stream with fishes, snails, ducks, and lotus flowers, recalling the Roman provincial artists' fondness for such decoration.

TURKESTAN.—**The French Expedition of 1906-1909.**—In *C. R. Acad. Inscr.* 1910, pp. 55-68 (2 pls.), P. PELLION reports upon the French expedition of 1906-1909 to Chinese Turkestan. Near Toumchouq numerous sculptures, chiefly heads, were found in the remains of a temple destroyed by fire about 800 A.D. At the temple Douldour-âqour, west of Koutcher,

important manuscripts, some in languages of Central Asia now dead, were discovered. The mural paintings in the artificial grottoes at **Qyzyl** and **Qoum-tourā** examined by Grünwedel were photographed. At **Touen-houang** the grottoes, which number about five hundred, were explored. Some are as early as the fifth century A.D., and are important for Chinese art of the Wei dynasty; while those of the seventh and eighth centuries show the decadence under the T'ang. The most important discovery was a great collection of manuscripts walled up in a niche in 1035. Most of them are in Chinese, but some are in Sanscrit and Tibetan and one fragment is in Hebrew.

EGYPT

GERMAN EXCAVATIONS IN 1908-1909.—In *Klio*, IX, 1909, pp. 478-483, L. BORCHARDT reports upon the work of the Germans in Egypt in 1908-1909. The Prussian *Papyrusunternehmen* excavated at Abus el-meleg, Darb Gerse, and Dime but found non-literary papyri only. The Ernst Sieglin Expedition continued the excavation of the mortuary temple of Chephren near the second pyramid at Gizeh, some of the details of which are given. *Ibid.* pp. 483-489, the same author summarizes the results of Reisner's excavations in the cemetery west of the pyramid of Cheops. These include the excavation of the mortuary temple of Menkara, and the finding of a considerable number of statues and other museum objects. He also gives an account of Lythgoe's excavations at the pyramids of Lisht.

EXCAVATIONS DURING THE WINTER OF 1909-1910.—

During the past winter much important archaeological work has been done in Egypt. At **Abydos** E. Naville and H. R. Hall cleared the tombs of Den and Perabsen, and found among other things mud sealings of Perabsen and Sekhemb; also clay jar sealings including one of "Zer" or Schesti; a great quantity of bone pins; pieces of wood and ivory inlay; a large collection of flint implements; a crystal vase which seems to show that Den is not Usaphais; and a hawk name incised on pottery which may prove to be that of a king of the first dynasty not yet recorded. On the eastern side of the Royal Tombs Naville found a mud floor on which were piled in regular order large unbroken pots. Several large statuettes of Osiris, on which the paint was still fresh, and remains of pottery furnaces also came to light here. North of the Royal Tombs T. E. Peet found numerous objects ranging in date from the sixth to the eighteenth dynasty, and a great cemetery of the common people of early times. At **Quft** (the ancient Coptos) R. M. Weill and A. J. Reinach found a quantity of stelae giving the names of the kings of the eighth dynasty, hitherto supposed to hold merely nominal sovereignty south of the Delta. In the **Valley of the Kings** Theodore Davis and Harold Jones opened several tombs for the most part empty. An inscribed piece of mummy cloth found in a jar discovered by Mr. Davis in 1906 shows that Tutankhamen ruled at least six years. At **Karnak** the work of restoration on the Hypostyle Hall has been completed. Between this part of the temple and the sacred lake a colossal statue of Userksen I was found in a fine state of preservation. At **Assassinif** H. S. Whitaker discovered the tomb of Men-kheper-ra-senb, a high priest of the time of Thothmes III. (*Athen.* March 19, 1910, p. 349.) *Kunstchr.* XXI, 1910, cols. 502-504, quoting from the London *Times*, re-

ports upon the work of the British School of Archaeology the past year. At **Meydum** an important tomb was excavated. There was a passage 13 m. long, from which led a cross-shaped hall 9 by 6 m. In it was a sarcophagus of red granite, the oldest granite sarcophagus known. The blocks which cover the roof of this hall are $5\frac{1}{2}$ m. long, $2\frac{1}{2}$ m. wide, and a metre thick, weighing about forty tons. The grave chamber is 5 m. high. The sarcophagus had been plundered. A second tomb, 9 by $4\frac{1}{2}$ m., had been cut out of the rock. This had not been opened before, yet the body had been robbed, evidently by the workmen who walled up the tomb. An examination of the eastern side of the pyramid revealed the presence of numerous masons' marks by which the date may be determined. At **Memphis** it was found that the ancient city was more damaged by the building of Cairo than had been supposed; but the depth of the soil to be removed was less than had been imagined, being about $3\frac{1}{2}$ m. Near the temple remains of a great chapel of Amenophis III were found. The foundations of the great court of Apries already known go down to a depth of about 14 m. Among the things brought to light were a complete portrait head of Amasis, some fragments of Aramaic records of Persian date, and a large bronze door ornament with the long title of Psammetichus I. From the potteries discovered it is possible to study the process of manufacture of glazed ware in the time of Augustus.

THE ETBAI DISTRICT. — **Some New Inscriptions.** — In *S. Bibl. Arch.* XXXI, 1909, pp. 319-323 (5 pls.), F. W. GREEN publishes a number of graffiti in Egyptian, Hymyartic, Coptic, Greek, Nabataean, and Cufic that are found in the Wady Gadami and Wady Hamama, which flow through the sandstone plateau that skirts the western side of the district between the Nile and the Red Sea lying to the north of the Hammamat road to Koser. (See *A.J.A.* XIV, p. 100.)

MAHEMDIAH. — **Excavations in 1909.** — In *C. R. Acad. Insc.* 1909, pp. 764-774, J. CLÉDAT discusses briefly the location of Mount Casius, which he identifies with the mound now called Mahemdiah at the west end of Lake Sirbonis, the modern Lake Baudouin. The character of the region is very like what it was in the days of Herodotus. Excavations carried on at Mahemdiah in 1909 brought to light the public baths dating from the fifth or sixth century A.D. The structure is about 20 m. square, and in an excellent state of preservation. A small temple of gypsum, 9.60 m. long by 6 m. wide, was also partially uncovered. Four cemeteries have been found so far, two of Roman and two of Byzantine date. Confirmation of the correctness of the identification of the site is found in an inscription in which KACIOC occurs as a man's name in Roman times.

MEROE. — **Recent Excavations.** — J. GARSTANG has discovered at Meroe a high altar of the great temple of Ammon with two terra-cotta tables of offerings lying on the ground before it. An inscribed tablet, containing prayers for protection from injury, was found near by. The altar, four feet high and four feet broad, is of black stone, and the sides are sculptured with reliefs of Horus and Thoth Anubis, the Nile deities, the Queen and King. The King is kneeling with the High Priest standing in front of him, offering an oblation. A secret chamber was discovered one hundred yards distant behind the sanctuary, in which the oracle was probably worked. (*Nation*, March 24, 1909, p. 301.)

BABYLONIA AND ASSYRIA

NEW TEXTS OF NEBUCHADNEZZAR.—In *S. Bibl. Arch.* XXXI, 1909, pp. 324–326 (pl. ; fig.), S. LANGDON publishes a cylinder of Nebuchadnezzar, now in the Royal Scottish Museum, that is a duplicate with slight variants of the Sippar cylinder in the British Museum; also a fragment of a cylinder of Nebuchadnezzar in the Bodleian Library that is a duplicate of a fragment recently published by Ungnad.

ASSUR.—**The Discoveries by the German Expedition.**—In *S. Bibl. Arch.* XXXII, 1910, pp. 41–54, T. G. PINCHES summarizes the results of the recent German excavations at Aššur, the ancient capital of the Assyrian empire (see *A.J.A.* XIV, pp. 100–101). In the northeast corner of the mound the great temple of the god Aššur built by Ušpia, one of the earliest kings, has been excavated; and near it the palace of Shalmaneser I has also been discovered. The temple of Anu and Abad is now found to have been erected by Aššur-rēš-iši, father of Tiglath-Pileser I, about 1150 B.C., and to have been rebuilt by Shalmaneser II about 850 B.C. The building-inscription of Aššur-rēš-iši has been discovered, and also of Tiglath-Pileser I, who in his annals claims to have restored the temple.

NIPPUR.—**A New Fragment of the Babylonian Flood Story.**—In *Researches and Treatises of the Babylonian Expedition of the University of Pennsylvania, Series D*, V, 1910, pp. 1–65, H. V. HILPRECHT publishes a fragment of a flood-narrative that was found by him in Nippur. The stratum from which this tablet comes indicates that it dates from about 2100 B.C. It contains the beginning of the story of the flood, and is similar in general to the flood-narratives that have been known hitherto. In Dr. Hilprecht's opinion it is more similar to the Biblical narrative than either of the two accounts that have been known previously. In the same volume he publishes a tablet of an ancient king of Guti, who describes himself as a ruler of Babylon who reigned at Nippur. Guti was the region in which Mount Nisir was situated, which, according to the Babylonian narrative, was the place where the ark rested after the flood. The deluge tablet is also discussed by HILPRECHT in *S. S. Times*, LII, 1910, p. 159; by T. G. PINCHES and F. HOMMEL in *Expl. Times*, XXI, 1910, pp. 364–327; and by A. LOISY, *R. Arch.* XV, 1910, pp. 209–211.

TELLO.—**The Excavations of 1909.**—In *C. R. Acad. Inscr.* 1910, pp. 152–157, L. HEUZEY reports briefly upon the excavations of G. Cros at Tello in 1909. The most important discovery was a fortification wall of unbaked brick, built by Goudea. Both sides of it were uncovered for about 100 m. It is about 10 m. thick, and in places is still 8 m. high. A large rectangular building was also found, besides implements of flint and of copper, terra-cottas, inscribed clay tablets, vase fragments, and particularly some new fragments of the stele of Goudea.

A New Brick-Stamp of Naram-Sin.—In *S. Bibl. Arch.* XXXI, 1909, pp. 286–288 (pl.), L. M. KING publishes a brick-stamp of Naram-Sin that was found at Tello, in southern Babylonia. It furnishes us for the first time evidence of the erection of a building in Lagash by a king of Akkad during the period of Semitic supremacy.

SYRIA AND PALESTINE

EXCAVATIONS IN PALESTINE.—In *Bibl. World*, XXV, pp. 21-32; 97-105; 296-308 (11 figs.), D. D. LUCKENBILL summarizes the results of the excavations of recent years in Palestine, and discusses the conception of the early religion of that country which is to be gained from archaeology.

ALEPPO.—**Hittite Tablets.**—In *Pal. Ex. Fund*, XLII, 1910, pp. 42-53, C. R. CONDER publishes in transcription and translation seven tablets, written in Semitic Babylonian, that have been found at Aleppo, Yuzgat, and Boghazkeui.

ARD KHALDI.—**A Recent Exploration.**—In *Pal. Ex. Fund*, XLII, 1910, pp. 99-106 (7 figs.), R. A. S. MACALISTER describes certain remains of unknown age, at a place called 'Ard Khaldi in the village of 'Abeik, near Beirut. These consist of rock-hewn graves and stone sarcophagi, remains of a building constructed of large stones, and a monolithic altar.

CARCHEMISH.—**Hittite Monuments.**—In *Ann. Arch. Anthr.* II, 1909, pp. 165-184 (8 pls.), D. G. HOGARTH discusses various Hittite monuments found by him in the vicinity of the ancient Carchemish in the spring of 1908. Carchemish is the modern *Jerablus*, but it is not clear whether it was the site of the Graeco-Roman *Europus*. Four reliefs excavated by the British in 1876-79 and still on the site are reproduced. Near Amani is a flat mound called **Tell-el-Ghranim** from which various Hittite seals were said to have come. At **Kellekli** were found two slabs of black basalt, one with a male figure upon it, and the second with the lower parts of two figures and a mutilated Hittite inscription in four lines. **Tell-Basher** is a large and imposing mound, probably to be identified with the ancient Pitru. Hittite seals and other antiquities purchased from natives were said to have come from it. At **Tell-Ahmar** were found two winged lions inscribed with cuneiform writing much defaced. The text on the eastern one alone is partly legible. Six fragments of a large basalt stele with a male figure about 3 m. high and the head of a smaller figure were discovered in a shallow excavation. At another spot were six fragments of an oblong stele upon which were sculptured the lower part of a man standing on a bull. Five of them bear Hittite symbols in relief, constituting the longest Hittite inscription known. Six other fragments of sculptures are recorded from this site, which is perhaps to be identified with *Til-Barsip*. Three Hittite sculptures at **Aleppo** are also noticed. *Ibid.* pp. 185-186, L. W. KING attempts a translation from a squeeze of the inscription on the lion at the east side of the principal gate at Tell-Ahmar. He dates it in the ninth century B.C. and attributes it to Shalmaneser II.

GEZER.—**A General Report of the Excavations.**—A summary of the results of six years' excavations at Gezer, taken largely from the quarterly reports of R. A. S. Macalister to the Palestine Exploration Fund, 1902-09, is published by H. THIERSCH in *Arch. Anz.* 1909 (cols. 347-406; 29 figs.). The full and definitive publication in English is now in preparation. While differing in some points from Macalister's conclusions, Thiersch gives him high praise for accomplishing almost single-handed an extraordinarily exacting task; but he criticises as dangerous the policy of laying the entire financial, personal, and scientific responsibility upon one man, with insufficient funds and without the assistance even of a professional

architect, to say nothing of experts in Egyptology and Aegaeon culture. The interest of the site, lying as it does at a strategic point between Egypt, Jerusalem, and the sea, is historical, political, and cultural rather than artistic. Five periods are distinguished. I. *Pre-Semitic*, 3000-2000 B.C., when the bare, rocky hill was first occupied and fortified by a race of short men, in the neolithic stage, who lived in caves in the rock and burned their dead. II. *Amorite*, 2000-1500 B.C., the first of three Semitic periods, when a taller, stronger race appeared, who laid out or buried their dead without burning, and have left evidence of human sacrifice and ritual cannibalism; intercourse with Egypt, twelfth dynasty. III. *Canaanite*, 1500-1000 B.C., beginning with the conquest by Thothmes III and rebuilding of the city wall on the line that remained practically unchanged through all subsequent periods; more advanced civilization and closer connections with Egypt, especially eighteenth to twentieth dynasties; substitution of offerings of lamps for human sacrifice; in the last two centuries, 1200-1000, Philistine domination, with very advanced artistic work of Cretan and Egyptian origin. IV. *Israelite*, 1000-500 B.C., beginning with the reign of Solomon and showing some falling-off in grade of civilization; Cypriote pottery; Assyrian influence and occupation in the seventh century. V. *Hellenizing*, 500 B.C. to the end, beginning with the Babylonian captivity and including the Seleucid and Maccabean occupation. In Roman times the population, now physically degenerate, moved to the more southerly site of the modern village, but the acropolis on the higher western summit of the hill was again fortified by Crusaders in the twelfth century. The most remarkable features of the site are the huge tunnel leading to a spring under the western summit, which dates from the first or second period and is connected with traditions of the Flood; the burial chamber in the eastern summit, where the funeral customs of the first two periods are especially shown; and the old Canaanite sanctuary in the saddle between the two summits, where a stone base for a wooden pillar, surrounded by burials of new-born infants, suggest the worship of a great nature goddess by the sacrifice of the first-born. The extraordinary series of megalithic monuments found here, ten or twelve huge oblong stones standing on a common stylobate and most of them upright to the present day, which are usually accepted as representing twelve divinities, is considered by Thiersch as more probably commemorative of some event or claim, whether they were erected by Canaanites or Israelites.

JERICHO.—**The German Excavations.**—In *Pal. Ex. Fund*, XLII, 1910, pp. 54-68, S. A. Cook summarizes the results of the German excavations at Jericho as reported in various German periodicals. The great city wall was unearthed, displaying an extraordinary degree of engineering skill in the laying of its large stones. At the northern end of the city the remains of a fine building, apparently a citadel, were discovered. In strata of the late Jewish or Hellenistic period jar handles were discovered, bearing the divine name Yah or Yahu in Aramaic letters. In Canaanite levels there were numerous infant jar-burials, associated with Cypriote and late Mycenaean imported ware. The archaeological evidence is far from confirming the account of Jericho in the Old Testament. The Canaanite walls are not overthrown to any great extent, and there are no signs of any considerable conflagration. Joshua 6:24 records that the vessels of iron were

preserved by the Israelites, but it is now known that iron was not in use among the Canaanites, and no iron has been found in the Canaanite level of Jericho. Moreover, the statement that Jericho was not rebuilt until the time of Ahab is not confirmed by the archaeological evidence, which shows a continuous occupation of the city from the earliest times. In regard to the chronological determination of the strata on the two hills of the mound, Professor Cook thinks that the conclusions of the German excavators are open to considerable doubt. A similar report of the excavations at Jericho, accompanied with similar doubts in regard to the correctness of the German chronological conclusions, is given by E. DE KNEVETT in *Exp. Times*, XXI, 1910, pp. 353-355.

KHIRBET BEL'AMEH. — **The Great Water Passage.** — In *Pal. Ex. Fund*, XLII, 1910, pp. 108-111, G. SCHUMACHER describes a rock-hewn tunnel at Khirbet Bel'ameh, the Biblical Bileam. It is apparently a water tunnel similar to that discovered at Gezer, and shows that Bileam is a city which dates from the Canaanite period. About four hundred paces from this tunnel there is a huge limestone monolith which was probably an ancient object of worship.

MOUNT EPHRAIM. — **Ancient Tombs.** — In *R. Bibl.* VII, 1910, pp. 113-128 (2 pls.; 13 figs.), F. M. SAVIGNAC describes the results of an expedition for the exploration of the ancient tombs of Mount Ephraim. These tombs all belong to the Graeco-Roman period, and are provided with ornamental façades of exceptional delicacy of execution. The plates and figures give copious illustrations of the ground plans and present appearance of these tombs.

SEPPHORIS. — **A Hebrew Inscription in Mosaic.** — In *C. R. Acad. Insc.* 1909, pp. 677-683 (2 figs.), C. CLERMONT-GANNEAU publishes a mosaic from Sapphoris, the ancient Diocaesarea, in Galilee. It consists of conventional patterns in black, white, and red, with a much injured Hebrew inscription in the middle. It dates from the third or fourth century A.D. and was probably part of the pavement of a synagogue. The writer discusses the text of the inscription.

ASIA MINOR

HITTITE MONUMENTS. — In *S. Bibl. Arch.* XXXII, 1910, pp. 168-174 (6 pls.), G. DE JERPHANION describes four small Hittite monuments in various parts of Asia Minor, two of which have previously been published.

AEOLIS. — **An Unidentified Greek Town.** — An unidentified Greek town lying along an elevation on the south bank of the Pythicus, between Myrina and Aegae, has been visited by numerous archaeologists since 1881. A brief description, with plans and illustrations of the remaining walls, is given by A. CONZE in *Jb. Arch. I.* XXV, 1910, pp. 1-8. The ruins lie on two heights, each of which contains more than one rocky peak. These heights were occupied and fortified in the Hellenistic and Byzantine periods, but the Roman settlement was on the lower western slope and unfortified. The present inhabitants of the district live at Güssel Hissar, a few miles to the southwest.

BOGHAZKEUI. — **An Account of the Excavations.** — A brief illustrated report of the results of the excavations at Boghazkeul, exclusive of inscriptions, is given by O. PUCHSTEIN in *Arch. Anz.* 1909, cols. 489-526 (12

figs.). Although the site is at an important stage on the route from the Black Sea south into Syria, it has remained unused, save for an unpretentious village, since the great Hittite capital, contemporary with the Mycenaean civilization in Greece, was destroyed by fire; hence the main features of what then survived are easily traceable to-day. There is a very elaborate system of defence, with double and perhaps triple walls, set with towers and built on high, stone-faced embankments through which tunnels are cut for postern gates. These walls not only surround an extensive area of irregular surface, but run through it in various directions, dividing it into distinct regions which have their own elevations of rock for especial strength. An Oriental but individual type of temple is seen in the large sanctuary of the chief god, in one of the low-lying districts and in three smaller ones in the higher part. These all have a large court surrounded by rooms or separate dwellings, with a gate of more than one story at one end and the temple proper at the other, each consisting of several apartments. A sleeping-room for the god, with stone platform for a couch, is a constant feature of these buildings. The large temple is enclosed by a vast system of store-houses for the property of the god, in some of which the *pithoi* remain sunk in the ground. The walls, which were burnt in the destruction of the city, consisted of a timber framework filled in with baked bricks, a structure which rested directly on the rough stone foundations in the smaller temples and upon massive *orthostatae* in the large one. Even the fortification walls were of this brick-and-timber construction in their upper part. Both the postern gates and the city gates, flanked by huge towers in the main fortifications, have a curious parabolic shape, due to the arched passages running at an oblique angle to the line of the walls. The huge stones which form the framing of the city gates are in one instance carved on the outside with a pair of fierce lions, and in another have on the inner side a young warrior in an attitude of command (Fig. 1), perhaps the portrait of the king who founded or at least fortified the city about 1400 B.C. Two deposits of cuneiform tablets have been found, inscribed in Babylonian and in the yet undeciphered national language, and are known to contain matter of great historical interest, besides treasure accounts and other such documents.

CHAI-KENAR. — **Prehistoric Figurines.** — In *Ann. Arch. Anthr.* II, 1909, pp. 145-148 (2 pls.), T. E. PEET publishes two prehistoric terra-cotta figurines from Chai-Kenar, twelve hours northwest of Adalia. They repre-



FIGURE 1.—HITTITE RELIEF AT BOGHAZKEUI.

sent the upper part of the body of a woman. The features and arms are rudely indicated, and the ornamentation consists of V-shaped lines cut in and filled with a white substance. They are probably of neolithic date.

CILICIA. — **Hellenistic and Christian Remains near Seleucia.** — Some observations on the Hellenistic remains of Olba and early Christian remains at Meriamlik, two sites near Seleucia in Cilicia, were presented at the March (1909) meeting of the Berlin Archaeological Society by E. HERZFELD and S. GUYER. Olba, an inland site on the spurs of the Taurus, was the head of the pirate state of (western) Cilicia Tracheia in the two centuries between Alexander and the Roman conquest and the home of the family of priest-princes calling themselves Teucrids. The great temple of Zeus Olbius, built by Seleucus I, Nicator, and repaired or added to about 60–50 B.C., and at many times under the Roman emperors, is in a remarkable state of preservation, and is the most important monument in Cilicia. The capitals are examples of early Corinthian, comparable to those of the tholos at Epidaurus and the Alexandrian capitals of Miletus. The carving on a street gate is of great beauty. It shows both Greek and Roman forms of acanthus and others like Early Italian Renaissance. A temple of Tyche, of the first century A.D., seems to have the ground plan of a Tuscan temple such as is sometimes found in Syria. The building inscriptions and long lists of priests with native names are of great interest. Meriamlik was the home of the worship of St. Thekla, who succeeded in the fifth century A.D. to all the attributes and local honors of the virgin goddess Athena and her earlier predecessor, the nature goddess. The saint is known through the Acts of Paulus and Thekla, dating from about 200 A.D., and through two books by Basil, bishop of Seleucia about 450, who has given a complete picture not only of her worship but of the complex life of his city at that time. The earliest church, the apse of which is preserved, may date from the second century, but the great basilica was built by the Byzantine emperor Zeno, 474–491 A.D. A crypt or lower church under the basilica, with Greek Doric columns, consists of a number of rooms, some from the time of Zeno, and some probably pre-Constantinian. This crypt or cave is an important feature in the legends of the saint, and it may be the primitive place of Christian worship for the Seleucians. The finest monument here, however, is a smaller domed church of the fifth century, with basilica ground plan. It confirms Strzygowski's assertion of a pre-Justinian development of the domed basilica. Other points of great interest invite more thorough study of this region with excavation. (*Arch. Anz.* 1909, cols. 433–450; plans.)

PERGAMON. — **A Temple of Demeter.** — A great sanctuary and temple of Demeter has been discovered at Pergamon. The temple is known from inscriptions to have been erected about 262 B.C. in honor of Boa, the mother of the Attalid dynasty; and a vestibule was added to it in Roman times. Inside the sanctuary were altars of Hermes, Asclepius, Helios, Zeus, and other gods. There were also found fragments of a statue dedicated to Demeter, a relief representing the goddess standing near an altar holding a torch in her left hand, part of a statue of Asclepius, heads of Hermes and Eros, and four Roman portrait heads. (*Nation*, May 5, 1910, p. 468.)

PHRYGIA. — **Greek Inscriptions.** — In *Cl. R.* XXIV, 1910, pp. 76–81, W. M. CALDER discusses three inscriptions from Phrygia, one of which he

had already published in the London *Times* (A.J.A. XIV, p. 102). A second inscription reads of έσπραχόμενοι ἐν ταῖς | Γούλλον γάμοις | ἀνίστερον
νεῖκην αὐτῷ. It was found at Dorla cut by a sharp instrument on a rough slab, probably by one of the wedding guests.

RHODES. — **The Danish Excavations.** — In giving an account of the results of five years' work in Rhodes by the Danes, at the June (1909) meeting of the Berlin Archaeological Society, K. F. KINCH described the two chief monuments found at Lindus, viz. a ship's prow built of stones which was erected by the officers and crews of certain vessels engaged in a naval war in the middle of the third century B.C., and a rock-cut grave relief representing the scene buildings of a theatre with four inscribed stelae standing on the podium or stage; date about 200 B.C. A small town which existed only about one hundred years, 650-550 B.C., has been excavated at Vrulia, on the southern coast. It lies on a peninsula which was fortified by a single line of wall across the tongue on the land side. A sanctuary found outside the wall resembles the shrine excavated at Knossus by Dr. Evans. In the necropolis at the foot of the same hill there were found forty-three children's burials in clay jars and thirty-three burials of adults, the latter with one exception being cremations. (*Arch. Anz.* 1909, cols. 570-572.)

SARDIS. — **Proposed Excavations.** — The Turkish government has granted a *firman* to the Princeton Syrian Expedition for the excavation of the ruins of Sardis. (*Class. Jour.* V, 1910, pp. 137-138.) The work, under the direction of Professor Howard Crosby Butler, has begun. A preliminary report will appear in the next number of this JOURNAL.

GREECE

AETOLIA AND ACARNANIA. — **Excavations in 1908.** — No new excavations were undertaken in the enclosure of the temple of Apollo at Thermon, as questions concerning the expropriation of the land still remained to be settled. At **Kryo Nero**, three hours west of Thermon, the temple of Aphrodite Syria was found. Ten inscriptions of the second century B.C. have to do with the manumission of slaves. This temple was sometimes called the "temple of the Syrian Aphrodite in Phistyon," and the remains near by known as "Palaiokastro" may now be identified with the ancient town of Phistyon. At **Calydon** architectural fragments of the temple of Artemis Laphria were found. Inscriptions of the third and second centuries B.C. confirm the name. Remains of a tower of Mycenaean date were also discovered. A tomb yielded some gold ornaments. Other tombs of no particular importance were opened on various sites. (G. SOTERIADES, *Πρακτικά* for 1908, pp. 95-100.)

ARGOS. — **Inscriptions.** — In *B.C.H.* XXXIII, 1909, pp. 445-466, W. VOLGRAFF publishes twenty-five inscriptions found at Argos. No. 22 is a fragment from the account of the adventures of people who had consulted the oracle of the Pythian Apollo; it is to be compared with the stelae commemorating cures at the Asclepieum at Epidaurus. No. 25 is apparently part of a report of sessions of the Boule at Argos in the Roman period.

ATHENS. — **A New Marine Inscription.** — In *Ath. Mitt.* XXXV, 1910, pp. 37-60 (fig.), J. SUNDWALL publishes a new marine inscription set

up on the Acropolis, which contains a list of indebted trierarchs. It is to be dated in 365/4 B.C. (Ol. 103, 4). Most of the marine inscriptions down to the time of the reforms introduced after the battle of Chaeronea belong to the fourth year of an Olympiad. It is, therefore, probable that these records were inscribed on stone once in four years. The dating of the exceptions can be revised to fit this theory: *I.G. II*, 789 B, Ol. 101, 4; 794, Ol. 105, 4; 803, Ol. 109, 4; 804, Ol. 111, 4.

The Restoration of the Erechtheum.—In *Πρακτικά* for 1908, pp. 224-226 (pl. with 5 figs.), N. M. BALANOS reports the completion of the restoration of the Erechtheum, which has been carried on from time to time since 1838. In the porch of the Caryatids some of the stones of the foundation were replaced by blocks of Piraeus limestone; several ancient pieces of the parapet and moulding were put back in place; an iron beam supported by iron rods was put in above the Caryatids, so that they no longer support any weight; the modern block of the architrave inserted in 1844 was replaced by the ancient pieces which have since been found; and finally four *lacunaria*, one of which had been broken into five pieces, were put in place. Some ancient pieces of marble were restored to their places in the doorway leading from the porch of the Caryatids; and the "well of Poseidon" was cleaned and, as far as possible, given its ancient appearance.

COLONUS.—**Recent Discoveries.**—I. N. SVORONOS, while investigating the topography of the hill of Colonus Hippius, has discovered the "chasm" in the sanctuary of the Erinyes in which the scene of Sophocles's *Oedipus Coloneus* is laid. The chasm, which is 15 m. in depth, was situated below the foundations of a small modern house on the ancient road from Thebes. The chief landmark of Colonus having once been identified, the other precincts mentioned by ancient writers were discovered without difficulty. It appears that Sophocles was topographically correct in all his descriptions of places in the *Oedipus*. Thus the altar of Poseidon and the Plutonium were found to answer exactly to the descriptions given in the drama. Moreover, it was possible to establish the site of the Academy. This led to the discovery of the boundary of the road leading from Athens to the Academy, on which were situated the tombs of distinguished historical personages of Athens. (*Nation*, May 5, 1910, p. 468.) In *Tὸ ἐν Ἀθήναις Ἐθνικὸν Μουσεῖον*, I. N. SVORONOS publishes three plates (123-125) and a full account of these discoveries.

CORINTH.—**Mould of a Bust of the Athena Parthenos.**—At a recent meeting of the American School at Athens, D. M. ROBINSON described a mould for making terra-cotta statuettes, which was found at Corinth and represents the bust of the Athena Parthenos. The type is instructive as giving details of the ornaments on the helmet, supplementing the evidence of the gold medallions from Kerch. The mould is probably of Hellenistic date. (*C.I. R.* XXIV, 1910, p. 100.)

DELOS.—**New Inscriptions.**—In *B.C.H.* XXXIII, 1909, pp. 472-522 (pl.), P. ROUSSEL and J. HATZFELD publish fifty-four inscriptions found at Delos in the years 1905-1908. A note on No. 19 is added by Hatzfeld, pp. 522-525.

EUBOEA.—**Excavations in 1908.**—In *Πρακτικά* for 1908, pp. 101-113 (5 pls.; 9 figs.), G. A. PAPABASILEIOU reports upon the excavations in Euboea in 1908. At *Platanistos*, near the ancient Carystus, the rectangular

building supposed by Bursian to be the Posideum of Strabo was uncovered. It is divided into two large rooms, the eastern one being 65.45 m. long and 40 m. wide, and the western, 40.70 m. long and 35.75 m. wide. The eastern part is older than the western. This was not a temple, but probably a guard-house, and the oldest part was erected before the Persian wars. An inscription carved on the long wall he restores thus: [H]ελλε[ν]ι[κ]ο[ν] | [μεδίσαν-
τας Κα]ρυστος | ἐπιμο[ρφω]το. It is, therefore, not the Posideum, which must be sought on a promontory to the right as one approaches Geraestus. At **Carystus** remains of a square Roman building having on each side seven columns with Ionic bases were excavated. It dates from the time of the Antonines, and may have been a temple of Apollo and Artemis. Near **Vromousa** five tombs were opened, one of which belonged to a little girl and contained two dolls, a small silver ring, and fourteen little pitchers and dishes of various kinds.

NAXOS. — **Excavations in 1908.** — During the year 1908 excavations were carried on in different parts of the island of Naxos. On the site of the temple near the sea parts of four more Doric columns were found. Tombs were opened in various places, the most important of which was a beehive tomb near **Komiake**. It was in a good state of preservation, but had been plundered in antiquity. Its diameter was 3.40 m. and its height 2.60 m. It had a small dromos closed by a wall 1.10 m. from the chamber. No bones were found in it and only a few fragments of undecorated pottery. At the small Mycenaean acropolis at **Kastraki** a wall of unworked stones was partially excavated and vase fragments discovered, but the work on this site was not completed. (K. STEPHANOS, *Πρακτικά* for 1908, pp. 114-117.)

SICYON. — **New Inscriptions.** — In *Πρακτικά* for 1908, pp. 145-152, A. S. ARVANITOPOULOS publishes six new inscriptions from Sicyon, one of which is Latin. It reads, *C. Julio Aug(us)ti L(iberi) Epagatho Ithacus amicus*. Remains of funeral monuments show that the road from Corinth lay near the sea and followed the direction of the modern highway. The writer thinks he has found evidence to confirm his theory that Sicyonian artists worked at Pagasae.

THESSALY. — **Excavations in 1908.** — In *Πρακτικά* for 1908, pp. 152-223 (8 figs.), A. S. ARVANITOPOULOS reports the results of his excavations in Thessaly in 1908. A hill called **Palaiokklesi**, not far from Zerelia, proved to be a small prehistoric site. Remains of a small temple of the fourth or third century B.C. were found upon it. At **Phthiotic Thebes** important excavations were conducted on the citadel. In the third, *i.e.* Greek, stratum remains of a temple 9.36 m. by 11.45 m. were found. It was probably distyle in antis, with the lower courses of stone and the upper part of sundried brick. It was partly built of materials from an earlier temple of similar character which stood on the same site. A broken tile with the letters ΟΛΙ, which the writer restores as [Η]ολι[άδος], seems to prove that this was the temple of Athena Polias. Hundreds of bronze rings, bracelets, and cooking utensils, as well as figures of terra-cotta, Corinthian vases, and gold and silver ornaments, belong to the older temple and date from the eighth century B.C. and later. Below this was a prehistoric stratum distinguished by hand-made vessels and a complete lack of objects of metal. Four subdivisions may be distinguished, the oldest dating from about 2500 B.C. At **Pagase** nine towers were carefully examined and new stelae

and fragments found (see *A.J.A.* XIV, p. 109). Near the temple and stoa are remains of large buildings which probably indicate the site of the market-place. Mycenaean remains have also been found at Pagasae.

Excavations in 1909.—In *Ann. Arch. Anthr.* II, 1909, pp. 149-158 (6 pls.), A. J. B. WACE and M. S. THOMPSON report upon their excavations in Thessaly in 1909. At the mound of **Palaiomylos**, half an hour west of Lianokladi, three clearly marked strata were found. In the first was fine hand-made pottery with red designs on a white ground. The pattern consisted of waved and curved lines almost concealing the background, and thus differs from the ware of Sesklo and Dimini. In the second stratum was hand-made pottery like the black lustre ware of the second stratum of Orchomenus. In the third stratum a type of ware not previously known came to light. It was hand-made, with geometric patterns in black on red. A three-roomed house was excavated, containing fragments of "Minyan" ware. No metal objects were found on the site. At **Tsani Magoula**, three quarters of an hour east of Sophades, eight successive settlements were found, one above the other. The chronological sequence of the pottery was: polished red ware; red on white ware, with both solid and linear patterns; black on red ware; three color ware; gray on gray ware; black lustre ware; coarse wares; encrusted ware; and late gray ware. The different kinds often extend over several periods. Thus, the polished red ware was found in the first four settlements, and the coarse wares from the third to the eighth settlement. The site was probably first settled about 2500 B.C. and was occupied until about 1100 B.C., when the eighth settlement came to an end.

SKOTOURA.—**Prehistoric Finds.**—In *Ath. Mitt.* XXXV, 1910, pp. 61-64 (3 figs.), N. I. GIANNOPoulos describes objects of the Stone Age found on a hill near Skotousa in Thessaly.

ITALY

RECENT ARCHAEOLOGICAL WORK IN ITALY.—In the London *Times* of March 26, A. ASHBY of the British School in Rome gives an interesting summary of recent archaeological research in Italy. In the Roman Forum the work is still going on slowly. The excavation of the Basilica Aemilia is continued; the prehistoric necropolis has been almost entirely filled in, and the Republican house near the Arch of Titus has been completely cleared. On the Palatine researches are carried on under the foundations of the eastern portion of the house of Livia. In the course of building operations within and without the city walls of Rome various finds of interest have been made, such as the discovery in the Villa Patrizi of the fragments of the base of a white marble candelabrum decorated with small niches containing statuettes; of a fine portrait bust of the first century A.D. outside the Porta Portese; and of several fragments of sculptures which adorned a peristyle found within the area of the Gardens of Sallust. On the site of the former Villa Spithoever a fine stretch of the wall which enclosed the city of Rome in the fifth (?) century B.C. has recently been fully exposed to view (see p. 378). It is built of slabs of gray-green tufa, about 10 inches in height and 20 inches in length and width, and is certainly earlier than the so-called Servian Wall. The excavations at Ostia are being continued. A considerable portion of the city has been examined; a street leading to

the theatre, with a portico on its west side, has been cleared; of the objects discovered the most important is a fine statue of a lady of the Imperial house, with the attributes of Ceres, probably dating from the reign of Hadrian. On the property of the King of Italy near by was discovered one of the three public baths which Pliny the Younger mentions as existing. North of Rome, at Ferento, near Viterbo, ancient baths and the interior of the theatre have been cleared; in the former a number of Roman inscriptions came to light. Pre-Roman tombs were discovered at Terni, Pavia, Este, near Padua, and at Belmonte and Fermo, in Picenum. At Pompeii a certain amount of work has been done, including the excavation of a pre-Roman necropolis, and much attention has been devoted to the restoration and preservation of the houses discovered in 1902-05. (*Nation*, April 14, 1910, pp. 386-387.)

CAMARINA. — **Excavations in 1909.** — Earlier excavations of the necropolis at Camarina were described in *Not. Scav.* 1907, pp. 484 ff. (*A.J.A.* XII, 1908, p. 368). To the number of tombs then investigated 147 more were added in 1909, making a grand total of 1643. None of the later number were of great interest. The lower half of a female statue clad in a *peplos*, and a female head in terra-cotta wearing the *modius*, are pictured and described by P. ORSI in *Not. Scav.* 1909, pp. 379-382 (3 figs.). Both fragments are of the fifth century B.C.

FLORIDIA. — **Siculan Tombs.** — In March, 1909, three tombs of the Siculan period were opened at Floridia, Sicily. They had already been

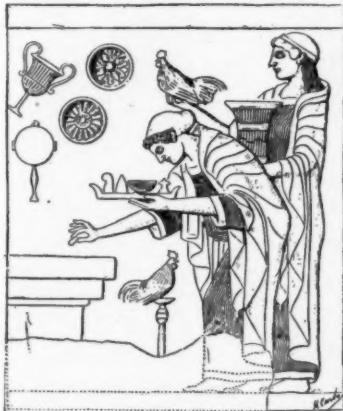


FIGURE 2. — TABLET FROM LOCRI.

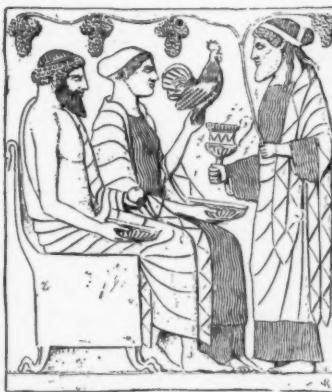


FIGURE 3. — TABLET FROM LOCRI.

violated, probably during the Greek occupation; but one of them yielded a vase of the inkstand shape and of Mycenaean decoration of the third period. P. ORSI assigns the tombs to the end of the second period, which he would date conservatively between the fourteenth and tenth centuries B.C. (*Not. Scav.* 1909, pp. 374-378; 5 figs.)

LOCRI EPIZEPHYRII. — **The Excavations of 1908.** — In *Boll. Arte*,

III, 1909, pp. 406-428 (27 figs.); 463-482 (25 figs.), P. ORSI describes the results of his third campaign at Locri Epizephyrii, April to June, 1908 (see *A.J.A.* XIV, p. 244). Below the hill at Mannella are two walls, one 110 m. long beside the river; and the other, 4 to 7 m. from it, serving as a protection against landslides. Within the space between these walls a great mass of ancient remains was found. The different objects date from the middle of the seventh to the middle of the fifth century B.C. They were not lying in chronological order, but promiscuously. The most numerous and most important of them were terra-cotta tablets which vary in size from 26 by 22 cm. to 26.5 by 24.5 cm., and from 5 to 8 cm. in thickness. The designs were stamped, but as no vestige of a mould was discovered the writer concludes that they were not made on the site. Many still preserve traces of color. They may be divided into eight general groups; 1. offerings to a chthonian deity (Fig. 2); 2. offerings to other divinities (Fig. 3); 3. a



FIGURE 4.—TABLET FROM LOCRI.



FIGURE 5.—TABLET FROM LOCRI.

procession or dance with offerings; 4. toilet scenes; 5. the abduction of a maiden (Fig. 4); 6. the mystic chest with an infant (Fig. 5); 7. picking fruit; 8. miscellaneous. There are many varying types in the different groups. The figurines found, representing men, birds, and animals, were not important. A great number of vases of local make came to light, an especially common type being a small *scyphus* with bands in imitation of Corinthian vases. Italo-Corinthian vases were common, but only two of *bucchero* ware were discovered. A fragment of a red-figured Attic *cylix* was inscribed $\Gamma\Lambda\Phi\Lambda\IO\Lambda\; \mathcal{E}\Gamma\OIE\mathcal{S}\mathcal{E}\mathcal{N}$, but in general the sherds of Attic vases were unimportant. A few finds of ivories and bronzes were also made. The writer believes that a sanctuary of Persephone or Demeter existed here in early times, and that it reached the height of its prosperity in the sixth century B.C. In *Philologus*, LXIX, 1910, pp. 114-125, W. A. OLDFATHER discusses the significance of the tablets for the cults of the town, and concludes that they came from some temple on the acropolis probably rebuilt about the middle of the fifth century B.C.

The Excavations of 1909. — P. ORSI describes in *Not. Scav.* 1909, pp. 319-326 (6 figs.), the campaign of 1909. Chief among the discoveries were:

a series of chamber-tombs excavated in the living rock, resembling the Siceliote type of Sicily, and yielding some interesting articles of bronze (*fibulae* of most archaic type); a sanctuary of Persephone, with remains of an inscribed *labrum* of marble; a small sanctuary of Athena; a necropolis of the archaic and Hellenistic periods; a *cippus* for a votive offering with the inscription **ΤΕΙ ΘΕΟΙ ΔΕΚΑΤΗ ΚΑΕΑΙΝΕΤΟΣ ΝΙΚΟΜΑΧΟΥ**; and two large bronze stamps, of two lines each, with the inscriptions **С FLAVII CORINTHI** and **Q · AMBIVI · FIRMI ·**. ORSI ascribes the former stamp to the Flavian era, the latter to a later date.

MINEO. — **Recent Discoveries.** — Signs of the existence of the ancient necropolis of Mineo, Sicily, were found in the discovery of a tomb of the third century B.C., which yielded among other articles a cylindrical mortuary urn of lead with decorative pattern, a covered saucepan, a bowl, and a covered casket, perhaps a jewel-box, of bronze. (P. ORSI, *Not. Scav.* 1909, pp. 383-386; 4 figs.)

OSTIA. — **Excavations in 1908-1909.** — A plan of the excavations at Ostia in 1908-09 is given with explanatory notes by D. VAGLIERI in *Not. Scav.* 1909, pp. 411-412. During the autumn of 1909 excavations were carried on in the tombs between the road of the tombs and the highway that is now recognized as the *Via Ostiensis*. A sarcophagus with an inscription by her mother to a 24-year-old Iulia Beneria disclosed the young woman's skeleton, and between its thighs that of an infant (*Not. Scav.* 1910, pp. 11-12; ill.). VAGLIERI suggests the possibility that the woman was buried in a cataleptic state, and gave birth to the infant in the tomb (but the skeleton of the woman appears in the photograph to be resting in a perfectly undisturbed attitude). A long inscription to C. Domitius Hermogenes makes possible the accurate restoration of its mate (*C.I.L.* XV, 3353). A metrical Greek inscription deserves mention (*ibid.* p. 15). The site of the looked-for city gate has been determined, and a portion of its inscription found, commemorating a restoration by P. Clodius Pulcher (*ibid.* p. 30). Excavations were continued along the *Via del Teatro* and *Via Ostiensis*, disclosing, among other less important fragments, a base erected by Glabrio, patron of the colony, to *Salus Augusti* (*ibid.* pp. 58-72; 10 figs.).

Epigraphic Gleanings. — In *Méл. Arch. Hist.* XXIX, 1909, pp. 341-364 (pl.), J. CARCOPINO publishes seven inscriptions on stone, nine brick-stamps, and a number of marks on *dolia*, all found at Ostia and Porto. One inscription in Porto found on Monte Giulio reads, *Silva]n[o] sa[cr(um)]*; | *P(ublius) Luscius R[...]-]anus sacerdos* | *Dei Liber[i]s patris* | *Bonadiensium* | *Silvano Sancto*, | *cui magnas gratias ago conducto auctupiorum*. The word *Bonadiensium* may refer to sectaries of the Bona Dea, who may then have been associated with Silvanus and Liber, but the reference is more probably to a *vicus* in Rome. The dedicatory probably hired the fowling privileges of some of the marshy land in the neighborhood. The temple of Bacchus-Liber was on the eastern mole, and the inscription was found not far away. The inscription *C.I.L.* XIV, 325, has been found again. A graffito published by Lanciani (*Not. Scav.* 1889, p. 81): *C. Licinius Cho? Felix* | *omnibus suo* · | *curis feliciter*, is found to read: *Nonna omnibus succurris feliciter VII.* The numeral may belong to another graffito. Remains of a building, perhaps a bath, were found on the property of Prince Giovanni Torlonia, at Porto. The marks on the *dolia* found in an ancient cellar south of the

Carone del Sole in 1902 indicate an average of 33 *amphorae* per *dolium*, and for the entire cellar about 726 *amphorae* (190 hectolitres, 57 litres).

PALESTRINA. — **A Fragment of Sulla's Mosaic.** — O. MARUCCHI, continuing in *B. Com. Rom.* XXXVII, 1909, pp. 66-74 (pl.), his studies of Praeneste and the Temple of Fortune, has discovered, he believes, a fragment of Sulla's well-known mosaic (*lithostroton*).

PADUA. — **Discovery of Egyptian Pottery.** — Professor Moschetti has recently found at Padua some late Roman unglazed vases and with them portions of a large vessel of Egyptian manufacture. The latter belongs to a kind of ware usually having a white body and a dark blue glaze outside and a light blue inside. The Roman vases serve to date the Egyptian. Other examples of this ware have been found on the Esquiline in Rome, and a few pieces from an unknown source are in the museum at Naples. It is found in abundance in Egypt. (*Athen.* June 4, 1910, pp. 680-681.)

POLLA. — **The Tomb of C. Utianus Rufus.** — A large monumental tomb at Polla, Lucania, erected to the memory of C. Utianus Rufus (first century A.D.) is described by V. SPINAZZOLA, who also discusses the family connections of the decedent, and the identification of Polla with the ancient Forum Popilii. (*Not. Scav.* 1910, pp. 73-86; 5 figs.)

REGGIO CALABRIA. — **Hellenistic Graves.** — Eight graves, of two different types, discovered at Reggio Calabria in May, 1908, are described by P. ORSI, in *Not. Scav.* 1909, pp. 314-318 (6 figs.). Five were framed of tiles for the sides and also for the gable roof; three were rectangular chambers formed with tiles laid as in a wall, which were continued into a well-made barrel vaulting. The furnishings were poor and of late date.

ROME. — **A Piece of Ancient Wall.** — Excavation for new buildings on land formerly belonging to the Villa Spitheoever has led to the uncovering of an imposing stretch of very ancient wall parallel to the Via Piemonte at the upper end of the Via S. Nicola da Tolentino. It is admirably preserved, 35.2 m. in length, 3.3 m. in average height. (G. GATTI, *B. Com. Rom.* XXXVII, 1909, pp. 119-121.)

Excavations in the Piazza Dante. — Excavations for the Postal Savings Bank have brought to light in the Piazza Dante, among other remains, a large edifice, an apsidal hall with frescoes on a white ground. (G. GATTI, *B. Com. Rom.* XXXVII, 1909, pp. 290-292; pl.)

Excavations at the Church of SS. Giovanni e Paolo. — Excavations of the Roman house underlying the church of SS. Giovanni e Paolo have been resumed. A large apartment, apparently a *nymphaeum*, has frescoes of the second or third century A.D. — a marriage of Peleus and Thetis or a scene from the myth of *Venus Marina* — coated over with white, probably under Christian auspices in the fourth century. O. MARUCCHI sees in this an important confirmation of the traditions regarding this house. (*B. Com. Rom.* XXXVII, 1909, pp. 122-123.)

Excavations near the Porta Pia. — In the course of excavations for the general offices of the state railways outside Porta Pia (Villa Patrizi) a section of the Via Nomentana has been unearthed, showing the usual polygonal blocks of basalt; also some remains of tombs, leaden pipes, etc.; also fragments of sculpture, including the fountain figure of a nude Ethiopian, feet in air, squirting the water from his half-opened mouth; further archi-

tectural bits, lamps, etc., and inscriptions. (G. GATTI, *B. Com. Rom.* XXXVII, 1909, pp. 182-189.)

A Cippus near the Porta Salaria.—A fifth cippus of Claudius's delimitation of the pomerium has been found in the Via Tevere, outside the Porta Salaria. It bears the serial number CIX and, of course, the Claudian orthography AMPLIavit · TERMINavitQ. (G. GATTI, *B. Com. Rom.* XXXVII, 1909, pp. 130-132.) A small fragment of another cippus has also come to light near the Porta Maggiore (*ibid.* p. 132).

Steps of the Claudium.—Excavations about the base of the Caelian Hill at Rome in the neighborhood of the portico and temple of Claudius have disclosed eight steps, apparently belonging to a great staircase, or ramp, that led to the building from the valley below. (*Not. Scav.* 1909, p. 407.)

An Acquisition of the Museo di Villa Giulia.—The Museo di Villa Giulia has recently acquired a large Etruscan sarcophagus of nefro adorned on all four sides with reliefs. The cover, belonging to another sarcophagus, has a reclining male figure upon it and an inscription along the edge. (*Boll. Arte*, IV, 1910, p. 79.)

A Medicus Veterinarius.—Some new inscriptions from the Roman antiquity shops are published by M. BANG in *Röm. Mitt.* XXIV, 1909, pp. 170-174. The most interesting presents for the first time a *medicus veterinarius* of a praetorian cohort.

SALAPIA.—**Sepulchral Stele of Geometric Style.**—In *Rend. Acc. Lincei*, XVIII, 1909, pp. 407-417 (pl.; 2 figs.), L. MARIANI describes a sepulchral stele found at Salpi, the ancient Salapia. The face is decorated with rhomboidal meander patterns, in the centre of which is a square, where we see represented a fibula and a complicated pendant, personal ornaments of the dead. These, which are of late iron-age type, as well as the geometric decoration of the stone, lead the author to place it between the eighth and fourth centuries B.C.

SARDARA.—**Necropolis of Roman Date.**—A series of graves containing modest furnishings of local ware was recently excavated near Sardara, Sardinia. The bodies were buried with the heads to the west and the feet to the east. The bronze coins were for the most part laid upon the breast of the corpses and belonged to Augustus, Hadrian, Caracalla, and Iulia Domna. (A. TARAMELLI, *Not. Scav.* 1909, pp. 332-335.)

SERRI.—**Recent Excavations.**—The excavation on the site of the pre-Roman city on the height of S. Vittoria at Serri, Sardinia, has brought to light imposing remains of a sacred area with various edifices, among them a well, or cistern. The temple recalls certain characteristics of the prehistoric Sardinian tomb. Two rude bronze statuettes found on the site are of especial interest. One, of type not unknown, represents a standing headman, clad in corslet and mantle. With his left hand he grasps his commander's staff; his right is raised in the attitude of prayer. The other statuette is unique. It represents a seated woman who holds in her lap an ithyphallic infant and raises her right hand in invocation. The character of the civilization to which these objects belonged is also somewhat discussed by A. TARAMELLI, *Not. Scav.* 1909, pp. 412-423.

SOVANA.—**Two Etruscan Lead Figures.**—In *Ausonia*, IV, 1910, pp. 31-39 (9 figs.), B. NOGARA publishes two lead figures found in an Etruscan chamber tomb near Sovana. One represents a nude man stand-

ing with his weight on his left leg and his right leg slightly advanced. It is 18 cm. high. The other, 16 cm. high, represents a nude woman standing with her weight on her right leg and with the left slightly behind. Both have their hands folded behind their backs. On the male figure is the inscription *zer | cecnas*; and on the female, *velia | satnea*. They date from the fourth century B.C., although the vases found with them prove that the tomb dates from the sixth or seventh century B.C. *Ibid.* pp. 39-47 (5 figs.), L. MARIANI argues that these figures are *defixiones*, put into the tomb at a late date to restrain the spirits of the dead. A lead torso in the National Museum in Rome, inscribed *Titus Tregelo Celsus*, and a bronze statuette and part of a second at Rettimo were used for the same purpose. He also compares the small lead figures found at Tell Sandahannah, Syria.

SYRACUSE. — **Recent Excavations.** — Excavations conducted during the two years 1907-09 are described at length by P. ORSI in *Not. Scav.* 1909, pp. 337-374 (29 figs.). They embraced the fort Euryalus, the theatre (where a piece, probably unique, of the decorative architecture of the building was found), the temple of Athena (where an architectural bit of much earlier age was discovered), and extensive explorations in the catacombs of S. Giovanni and in certain Christian *hypogaea* in the Cappuccini region, which yielded many lamps.

TERLIZZI. — **Neolithic Remains.** — A neolithic settlement at Monte-verde, near Terlizzi, Apulia, has yielded striking specimens, particularly of earthenware, which are described at length by A. MOSSO and F. SAMARELLI in *Not. Scav.* 1910, pp. 33-52 (29 figs.).

TERMINI IMERESE. — **An Ancient Amphitheatre.** — Remains of an ancient amphitheatre were uncovered at Termini Imerese, Sicily, in September, 1908, by A. SALINAS, who describes them briefly in *Not. Scav.* 1909, pp. 330 f.

TERRANOVA. — **Recent Excavations.** — Further exploration of the archaic temple at Terranova, near Gela in Sicily (cf. *Not. Scav.* 1907, pp. 38 ff.; *A.J.A.* XII, 1908, p. 108), has yielded nothing of importance, further than to establish the conjecture that the east front of the temple was decorated with figures in painted terra-cotta. The excavation of seventy-one tombs of the necropolis of the sixth century B.C. was similarly without fruit, ancient plunderers having anticipated the modern. (P. ORSI, *Not. Scav.* 1909, p. 382.)

SPAIN

AMPURIAS. — **A Terra-cotta Statuette of Demeter.** — In *R. Et. Anc.* XII, 1910, pp. 152-153 (pl.), P. PARIS publishes a terra-cotta statuette, 16.5 cm. high, recently found at Ampurias. It represents Demeter standing and holding a pig by the leg with her right hand, but it is broken off at the knees. It is of Greek workmanship in the style of the fifth century B.C.

NUMANTIA. — **The Excavations of 1909.** — The fifth campaign of excavations around Numantia (1909) was marked by the preparation of exact topographical maps and plans of the entire region and of the several parts, and by the discovery of the camp of Q. Fulvius Nobilior, dating from the first year of the war, 153 B.C. (Appian, *Iber.* 46). It is admirably situated on the brow of a hill, 6 km. to the east of the city and near the village of Renieblas. Owing to local conditions the walls of native limestone,

mostly in huge blocks, have suffered little by time, and very little digging was necessary to disclose the entire ground plan. The orientation shows that the camp was laid out in the latter part of August. The prevailing unit for large sections such as the praetoria is the *actus* of 120 feet, instead of the 100-foot unit of Polybius and of the Scipionian forts in the neighborhood. The latter show the Greek decimal system prevailing over the earlier Latin duodecimal. The barracks provide for one legion only of the two which constituted a consular army, the *Volcanalia*; for more than half the army had been destroyed in the battle of August 23. A much larger camp was later built, or at least fortified, on the same site, taking in part of the same ground. It has not as yet been possible to identify this, the tempting ascription to Mancinus, 137 B.C., proving untenable. The single finds are not numerous, but include some interesting types of weapons, besides other metal objects and coins. The missing seventh fort in the northwest corner of Scipio's enclosing line has been found and will be excavated in the next campaign, together with the important parts of Nubilior's camp. (A. SCHULTEN, *Arch. Anz.* 1909, cols. 526-548; 10 figs.)

FRANCE

ALESIA. — **The Excavations of 1909 on Mont Auxois.** — The excavations at Alesia in 1909 were carried on at four places on Mont Auxois. 1. In the space between the *cavea* of the theatre and the road to the south a semicircular wall, 0.65 m. thick, was found following the line of the theatre. At a later time cross walls, the purpose of which is not yet clear, were built. 2. At the forum many broken marble slabs were found and a much weathered female head with the hair decorated with three large flowers. 3. In the region south of the theatre many houses were uncovered which were found to have cellars. This is very unusual in Roman houses. The stairways with five, six, or seven steps were usually still in place. Many wells were also found, but what purpose they served is uncertain. In them were found bronze vessels and moulds for their manufacture. 4. The region lying to the east of this seems to have been destroyed in late Gallo-Roman times and to have been used as a cemetery. Provision has been made for preserving the buildings already excavated. (J. TOUTAIN, *C. R. Acad. Insc.* 1910, pp. 139-151; 3 figs.)

ARLES. — **The Roman Circus.** — In *B. Soc. Ant. Fr.* 1909, pp. 300-305 (3 figs.), A. HÉRON DE VILLEFOSSE calls attention to the fact that in excavating at Arles for the canal from Marseilles to the Rhone workmen uncovered a small portion of the ancient circus. The site has long been known, but not the details of the structure. A marble sarcophagus was also found.

An Inscription of the Third Century. — In *C. R. Acad. Insc.* 1910, pp. 106-107, R. CAGNAT records a dedication to a certain M. Aur. Priscus recently found at Arles. He is described as *frumentarius, canalicularius, ostiarius, and primiscrinus* of the praetorian camp. This is the first mention of the last two offices. The inscription dates from the third century A.D.

DORDOGNE. — **Skeletons of the Mousterian Period.** — In *C. R. Acad. Insc.* 1909, pp. 797-806 (3 figs.), DR. CAPITAN and PEYRONY give an account of their discovery of human remains of the Mousterian period at

two sites in Dordogne. At **Pech de l'Aze** the skull of a child was found; and at **La Ferrassie** the complete skeleton of a man. With great care the latter was removed entire to the laboratory. Three flat stones and some bones which showed marks of pounding were found with it.

FRAILLICOURT. — **Roman Remains.** — In *Röm.-Germ. Kb.* III, 1910, pp. 19-22 (3 figs.), E. KRÜGER translates a paper by Jules Carlier which appeared in the *Revue Historique Ardennaise*, 1908. The writer discusses especially a glass cup found with other objects in a small terra-cotta sarcophagus, accidentally discovered near Fraillécourt (Ardennes). The cup is of white glass decorated with thick, polychrome painting, representing birds, caterpillars, and plant decoration. The cup dates from the first century A.D.

GRENOBLE. — **A Roman Altar.** — The museum at Grenoble has recently acquired a Roman altar from Valette to which an ancient head of Mercury had been attached in modern times. (H. FERRAND, *R. Ét. Anc.* XII, 1909, pp. 78-80; 2 figs.)

HAUTE LOIRE. — **Recent Discoveries.** — In *B. Soc. Ant. Fr.* 1909, pp. 332-334, U. ROUCHON reports two recent discoveries in Haute Loire. At **Bas-en-Basset** an inundation of the Loire revealed part of a Roman road. Excavations in the vicinity brought to light fragments of polychrome pottery, on one of which a woman appears carrying an amphora on her head. At **Grangeneuve**, commune of Lapte, a farmer found a jar containing about two hundred gold coins. They are Gallic imitations of the Macedonian stater and are of great purity, varying in weight from 8.50 gr. to 8.80 gr. Some of the best specimens have been acquired by the Musée Crozatier at Le Puy. *Ibid.* p. 334, H. DE LA TOUR shows that the hoard contained no type that was absolutely new, and that the coins fall into two series. The older are heavier and much less numerous than the later coins, which are the handsomer.

HYÈRES. — **The Genius of Olbia.** — In *R. Ét. Anc.* XII, 1910, pp. 73-77 (plan; fig.), H. DE GÉRIN-RICARD publishes a statue base of marble found at Hyères in October, 1909, and dating from the second or third century A.D. Only the feet remain, beside which is part of a tree trunk with a serpent coiled about it. The plinth is inscribed *Genio vicinae castellanae Olbiensium L. Rupil(i)us Iacchus d. d. c. s.* The monument is important as showing that even a small town in Gaul had a Genius of its own. The Massiliote colony of Olbia must be located near Hyères. Cf. *B. Soc. Ant. Fr.* 1909, pp. 343-347.

LA TURBIE. — **The Trophy of Augustus.** — In *C. R. Acad. Insc.* 1910, pp. 76-87 (3 figs.) JEAN-CAMILLE FORMIGÉ gives the results of his excavations made in 1905-1909 about the trophy of Augustus at La Turbie above Monaco. It was erected in the year 5 B.C. to commemorate the victory of Augustus over the people of the Alps. Pliny (*N.H.* III, 24) preserves the inscription. The monument consisted of a square platform, 37.80 m. on each side, above which were three steps forming a basement 34 m. square. The stones are fastened together by iron clamps one of which bears the inscription *AVGVVS* and another *A/*. The second story is square, measuring 27.10 m. on each side. Traces of four stairways were found in it. The third story consisted of a circular wall 18.05 m. in diameter outside of which were placed twenty-four columns. In the intercolumniations were trophies and statues alternating. The columns rest on a base, but have Doric

capitals of marble and a Doric frieze. The metopes were decorated with bulls' heads, prows of ships, cuirasses, etc. Above all stood a statue of Augustus. The height of the monument was 46.10 m. It was thus the largest Roman trophy known. *Ibid.* pp. 94-95, M. DIEULAFOY argues that the architect took as the basis for his design the Mausoleum at Halicarnassus.

MARQUAY.—**Wall Sculptures of the Magdalenian Epoch.**—In *C. R. Acad. Insc.* 1910, pp. 16-20, G. LALANNE gives a brief account of wall sculptures of the Magdalenian epoch recently found by him in a rock shelter in the commune of Marquay (Dordogne). Carved bones, one with a reindeer head and another a horse's head, were found near the hearth; but on the walls of a gallery, in high relief, were reindeer (1.90 m. long), a bison (1.40 m. long), and a horse (2.15 m. long). Above the horse were the heads of two wild goats, one biting the ear of the other. Behind the horse appeared the head and neck of a smaller horse. Another group consisted of a large horse, above which was an ox with head hollowed out, and below, a bison. Finally, there was a third horse. A block which had fallen from the roof had a bison in outline. These sculptures can be dated with certainty.

MONTLAURES.—**The Excavations of 1908.**—In *C. R. Acad. Insc.* 1909, pp. 981-995 (2 figs.), E. POTTIER reports upon the excavations made in 1908 by H. Rouzaud and himself at Montlaurens. The site was not a necropolis, as had been supposed, but a large settlement, and remains of dwellings, utensils, arms, toilet articles, pottery, and coins were found. Most of the coins bear the legend **NERENCN**, which probably stands for *Nerencoion*, that is, money of the people of Naro, which was the ancient name of Narbo. The pottery is most important and consists 1. of crude vases of local manufacture; 2. the so-called "Iberian" pottery, decorated with concentric circles, wavy lines, etc., found mixed with Greek pottery of the fourth and third centuries B.C.; 3. Greek vases chiefly of the fifth, fourth, and third centuries, although a few fragments of Attic black-figured vases were found. The remains confirm the literary tradition that in the sixth century B.C. the Ligurians founded a kingdom near the mouth of the Aude with Narbonne for its capital, and that this eventually fell into the hands of the Iberians.

PARIS.—**Acquisitions of the Louvre in 1909.**—In *B. Soc. Ant. Fr.* 1909, pp. 395-404, A. HÉRON DE VILLEFOSSÉ and E. MICHON report forty-five acquisitions to the Louvre in 1909, the most important of which are the following: 1. A marble head of Agrippina from Athens. 2. A beardless male head from Smyrna. 3. An archaic statuette of a woman from the museum at Auxerre, probably from Crete (Fig. 6). 4. A draped statuette of a woman with head and arms missing, from Egypt. 5. A draped female figure moving to the right. Head and arms missing. Probably a figure from a pediment or an acroterion. 6. A grave relief from Niha, ten hours ride from Beyrouth. 7. Eleven Greek and Latin inscriptions. 8. Four Boeotian fibulae of bronze (published in *M. Soc. Ant. Fr.* LV, pp. 159-179). 9. The seated figure of a woman of bronze with her right arm across her breast and with her left supporting a naked child who sits on her knee; from Delphi. 10. A primitive bronze horse from Olympia. 11. A nude male figure of bronze standing with left leg advanced and with drapery hanging over the left arm. The right hand held some object now lost. 12. A bronze bust of Mercury, once used as a weight. 13. Two silver

fibulae ornamented with gold; from Dodona. 14. Three fragments of a glass cup adorned with figures. 15. A round ivory pyxis, upon which is the figure of a reclining Cupid looking at a panther. On the cover is the bust of a beardless man wearing a helmet. 16. A lead bullet for a sling, inscribed AM.



FIGURE 6.—STATUETTE OF PRIMITIVE CRETAN STYLE.

Soissons, reading CIVITAS · SV, *i.e.* *civitas Su[essonum]*. Only two other inscriptions have been found here, although the town was important in Roman times. There can now be no question as to the identity of the site.

SWITZERLAND

CHÊNE-ET-PÂQUIER. — **A Neolithic Settlement.** — In *Z. Ethn.* XLI, 1909, pp. 963-965, V. Gross writes of neolithic remains found near the village of Chêne-et-Pâquier (Canton of Vaud) on an almost inaccessible plateau, measuring 100 m. in length by 6 or 7 m. in width, at the foot of a cliff. These include flint chips, stone axes, bone utensils, ferrules of deer horn, awls and chisels of horn and bone, files, lance and arrow heads of flint, boar teeth perforated for stringing, weaving weights, and pottery, varying from the coarsest sorts of the Stone Age, in the lower levels, to the finer kinds of the Bronze Age, in the upper strata, where some bronze objects were actually found. The wall of the cliff shows holes for the support of roof beams, and there are evidences that goats and perhaps other animals were domesticated by the inhabitants. The fauna and flora seem contemporary with the Palafittes.

SAINT-GERMAIN. — **An Inscribed Base.** — In *B. Soc. Ant. Fr.* 1909, pp. 255-257, A. HÉRON DE VILLEFOSSE publishes the small bronze base of a statuette inscribed OGL · AVG · SACATEVRITVS | SEPLAS · V · S · L · M, which he interprets as *Ogl . . . Aug(usto) sac(rum) Ateuritus seplas(iarius) vot(um) s(olvit) l(ibens) m(erito)*. The abbreviation OGL probably stands for the name of a Celtic god otherwise unknown. The *seplasarii* were druggists, or dealers in cosmetics, who got their name from Seplosia, a place in Capua. The object is now in the museum at Saint-Germain.

SOISSONS. — **A New Inscription.** — In *B. Soc. Ant. Fr.* 1909, pp. 257-259, A. HÉRON DE VILLEFOSSE publishes a fragmentary inscription recently found at

GERMANY

ALZEI.—**A Late Roman Fort.**—In *Röm.-Germ. Kb.* III, 1910, pp. 17-19 (plan), E. ANTHES reports upon excavations on the site of a Roman fort at Alzei. The fort forms a nearly perfect square, 165 m. wide. Half of the west side and parts of the north and south sides have been laid bare. The whole structure was of stone; the walls have a uniform thickness of 3 m. (10 Roman feet). There was no ditch, but numerous semicircular towers, some solid, some hollow. The gate on the west side is poorly preserved. Along the west wall barracks were discovered, one of which had hypocaustic heating. The fort dates from the fourth century A.D.

BERLIN.—**An Egyptian Apparatus for Reckoning Time.**—In *Ber. Kunsts.* XXXI, 1910, cols. 158-160 (3 figs.), H. SCHÄFER publishes an ancient Egyptian apparatus for computing time, recently acquired by the Berlin museum. It consists of three parts, a narrow strip of wood with a slit in the end and an ivory handle to which a plummet was attached by a cord. Two persons were required to operate it. One sighted with the strip of wood on the North Star, while the other determined the star which was passing through the meridian at the time. By the help of tables the hour of the night could thus be found out. This specimen dates from about 600 B.C. He also publishes a stone vase pierced with a small hole and with rings cut inside, which was used as a water clock. It dates from the third century B.C. and is likewise in the Berlin museum.

COLOGNE.—**A Roman Altar-stone.**—In *Röm.-Germ. Kb.* III, 1910, pp. 1-4 (2 figs.), J. POPPENREUTER publishes a Roman altar-stone recently found at Cologne, showing an altar scene in relief. There are five figures: the officiating priest, three assistants, and a flute-player. The inscription reads: *Deae Vagdavercusti Titus Flavius Constans praef(ectus) praet(oris) em(inentissimus) v(ir)*, and is discussed by A. VON DOMASZEWSKI, who identifies the dedicatory with the procurator of Dacia of the same name (*C.I.L.* III, 13793-13798) and assigns the stone to 165-167 A.D.

COSILENZIEN.—**An Ustrina of the Bronze Age.**—In *Z. Ethn.* XLI, 1909, pp. 940-943 (2 figs.), MAX EBERT describes a crematory of the Bronze Age discovered near Cosilenzien (Kreis Liebenwerda), the floor of clay, baked red, being 2.10 m. long by 1.30 m. wide, and the sides also of clay 30 cm. high. Built into the corners stood wooden uprights, one of which still measures 35 cm., evidently as supports of wooden cross-beams, some of which lay charred upon the sides of the *ustrina*. One corner of the floor was dug deeper and opened toward the side to provide a draft. The upper structure could be lifted from the floor to facilitate the gathering of the bones, and may have been renewed on each occasion.

MOELLENDORF.—**A Prehistoric Round Wall.**—In *Z. Ethn.* XLI, 1909, pp. 918-940 (12 figs.), H. GROSSE describes a prehistoric round wall in Moellendorf near Luckau. Its present circumference is about 165 m., its longer axis 50 m., and its shorter 30 m. Hand millstones, concave and convex, with a hole in the centre, a whetstone, and rude potters' tools indicate Slavic workmanship of about 1000 A.D. The provenience of the millstones and the pottery is fully discussed.

SPEYER.—**Acquisitions of the Museum.**—The new Historical Museum at Speyer, opened May 22, 1910, has acquired the fine collection of

objects from Roman graves made by Wilhelm Ludowici. It is especially rich in *terra sigillata*, which, added to the specimens already belonging to the museum, makes this the best collection of this ware in Germany. Many pieces prove that a liquid glaze was applied to the vessel before firing. All the antiquities came from graves opened at Rheinabern (Taberna Rhenanae) 22 km. from Speyer. (E. HEUSER, *Die Saalburg*, April 30, 1910, pp. 358-361.)

AUSTRIA-HUNGARY

KARLSBURG.—**New Inscriptions.**—In repairing the foundations of the fifteenth-century church at Karlsburg over thirty stones were found with inscriptions or reliefs. One of these, a dedication to a certain *M. Ulpius Apollinaris*, is published by J. JUNG in *Jh. Oest. Arch. I. XII*, 1910, Beiblatt, cols. 139-146; fig.

NORTHERN DALMATIA.—**Recent Discoveries.**—In *Jh. Oest. Arch. I. XII*, 1910, Beiblatt, cols. 13-112 (83 figs.; 3 maps), M. ABRAMIĆ and A. COLNAGO give the results of recent archaeological work in northern Dalmatia. Remains of seven Roman roads have been found as follows: (1) From Cvijina Gradina running southwest to Pridraga; (2) from Cvijina Gradina running south to Asseria; (3) from Cvijina Gradina running southeast to Gradina Medvidje; (4) from Maslenica running northeast to Mali Halan; (5) from Duboki dol running south to Kistanje (Burnum); (6) from Medvidje running southwest to Asseria; (7) a road running southwest from Bjelina. At **Gradina Smokovac**, where town walls were already known, remains of a bathing establishment were brought to light. The Roman cemetery at **Starigrad** (Argyranum) was further explored, and many small objects, such as terra-cotta lamps, fibulae, vessels of bronze and of glass, ornaments, coins, etc., found. These are now in the new museum at Obrovazzo. The flourishing period of Argyruntum seems to have extended from the middle of the first century A.D. to the second half of the second century.

PANNONIA.—**Two Bronze Stamps.**—In *Jh. Oest. Arch. I. XII*, 1910, Beiblatt, cols. 113-120 (3 figs.), M. ABRAMIĆ publishes two ornamental bronze stamps from Pannonia. One found at **St. Valentin** has the letters *milita[n]tium*; the other, from Carnuntum, reads *rum | omni|um*, which he restores as *[fides n]ume]rum omnium*.

VESZPRÉM.—**A Hoard of Coins.**—At Veszprém (Hungary) were found in 1908, bestowed in a pot of poor earthenware, a few iron implements and 2881 coins (almost all of the fourth century A.D.), which are described in detail by W. KUBITSCHEK and O. VOETTER in *Num. Z.* 1909, pp. 117-136 (fig.).

GREAT BRITAIN

CORBRIDGE.—**A Basrelief.**—A basrelief found at Corbridge on the Tyne, Northumberland, published in *Archaeologia Aeliana*, 1909, p. 7, and *Arch. Anz.* 1909, p. 238, is republished by S. R. in *R. Arch. XIV*, 1909, p. 468. A youth who holds a horse by the bridle stands in an aedicula. He seems to be one of the Dioscuri. A youth wearing a radiant crown approaches on a winged horse. He is more likely to be Helios than Belerophon.

GELLYGAER.—**The Excavation of the Baths.**—In the summer of 1909 the Roman baths at Gellygaer were excavated and found to be very

complete. The buildings formed a block 112 feet long, and were twice restored. Both the original plan and the final form of the buildings can be made out. Large parts of the hypocaust and many of the flue-tiles are still *in situ*. Two fragments of inscriptions were found, one of which shows that the buildings were in use at the time of Trajan's fifth consulship. (D. A. SLATER, *C. R. XXIV*, 1910, pp. 34-35.)

LLANDDYFNAN.—**The Exploration of Two Barrows.**—In *Proc. Soc. Ant. XXII*, 1909, pp. 368-373, E. N. BAYNES describes the exploration of two barrows recently removed at Llanddyfnan, Anglesey. The larger mound contained eight urns, one of which had three raised hoops or ribs running round it. The largest urn contained among other things a bronze knife. Near the edge of the barrow was a skeleton. The mound dates from the Bronze Age. About two hundred feet to the southeast was a smaller barrow, in which was found in a cist a skeleton which had apparently originally been wrapped in a hide or skin. A flint knife was under the head. This mound is older than the other, although it, too, probably dates from the Bronze Age.

LONDON.—**Recent Acquisitions of the British Museum.**—Among the recent acquisitions of the British Museum are: (1) A silver figure of a lion from Argos, dating from the early part of the sixth century B.C. The mane and tip of the tail are gilt. It is modelled with great spirit. (2) Two bronze mirror cases and a relief from a third. Dionysus and Ariadne are represented on the first, which comes from the Somzée collection (Furtwängler's *Catalogue* Pl. 36, 93). The relief on the second represents a Victory driving a two-horse chariot at full speed. On the third a helmeted warrior tries to drag a nude, wounded comrade from the battle. (3) A bronze figure of a deer, from Spain. (4) Upper part of a marble grave stela of fine style with a well-preserved girl's head. It is inscribed ΚΛΕΑΡΕΤΗ. (5) An ivory rattle in the form of a sistrum from Orvieto. (6) Two archaic terracottas of early Boeotian type from Lake Copais, and a youth wearing a cuirass from Tanagra. (7) Six vases of various periods, including a Dipylon bowl in fine condition and a pair of lecythi in the rare technique of about 500 B.C., in which the figures are painted in red, purple, and white on the black glaze which covers the vase. (8) Two inscribed tablets from Cnossus, presented by Dr. Evans. They belong to his "Linear Script, Class B." (*C. R. XXIV*, 1910, pp. 133-134.)

A Bronze Patera.—In *Proc. Soc. Ant. XXII*, 1909, pp. 414-415 (pl.), F. G. H. PRICE publishes a Roman patera of bronze found in the Thames near Walton and now in the British Museum. It is 13 inches in diameter, 3 inches high, and of fine quality. Such vessels, though plentiful in Italy, are rarely found in Britain or the north of Europe.

AFRICA

CARTHAGE.—**An Amphora Handle inscribed Baal.**—In *C. R. Acad. Insc.* 1909, pp. 997-1000, P. BERGER publishes a mark stamped on an amphora handle from Carthage which he interprets as the word *Baal*. The characters are enclosed in a square 2.5 cm. on each side.

A Municipal Inscription.—In *C. R. Acad. Insc.* 1910, pp. 135-139, A. HÉRON DE VILLEFOSSÉ publishes a Latin inscription recently found at

Carthage. It is a dedication in honor of Q. Voltedius Optatus Aurelianus who had been *aedilis*, *praefectus jure dicundo*, *duumvir*, and *duumvir quinquennalis* as well as *sacerdos Cererum*. Another name is thus added to the chronological list of these priests.

HENCHIR-ES-SRIRA. — **Ancient Temple and City.** — In *Méth. Arch. Hist.* XXIX, 1909, pp. 365-395 (7 figs.), L. HAUTECOEUR describes the ruins of Henchir-es-Srira, near Hadjeb-el-Aioum, in Tunisia. On the side of an isolated rock are foundations of a temple which had two cellars and was built with its rear against the hill. Numerous stelae found here bore dedications to Saturn, who probably succeeded Baal, himself the successor of a still earlier deity. The stelae were apparently dedicated by natives. On them are symbols of Selene-Coelestis, the head of Helios, offerings or sacrificial instruments, etc. On one is an eagle, indicating perhaps a fusion of Baal-Saturn with Jupiter. One inscription is dated *VI Kal. Iul. Valeriano et Lucilo cos.*, i.e. June 26, 265 A.D. The city was about a kilometre north of the temple. Foundations of several buildings were uncovered. Many lamps and fragments of pottery were found and the site of the potters'

furnaces was probably discovered. The lamps made here were exported to Carthage, Sicily, and even to Italy. The city received its water by means of an aqueduct from springs north of Mrlah. For some time after the third century A.D. the place was prosperous, then everything comes to an end, perhaps through the Vandal invasion. An appendix (pp. 396-400; 2 figs.) contains a catalogue of the 26 hitherto unedited stelae from the temple of Saturn and notes on some of those published in *Bull. Arch. du Comité*, 1906, pp. ccii, ccxxi.

MAHDIA. — **Antiquities from the Sea.** — In *C. R. Acad. Insc.* 1909, pp. 650-671 (4 figs.), A. MERLIN describes the antiquities recovered in 1909 from the ancient ship sunk off Mahdia, Tunis. (See *A.J.A.* XIII, pp. 102-103; 374; XIV, p. 248). One of the fifty marble columns was brought to the surface and found to be 3.95 m. in length and unfluted. Most of the other



FIGURE 7. — MARBLE BUST FROM MAHDIA.

columns are of the same size, although Ionic capitals and bases of several dimensions have been found. A peculiar composite capital was also discovered with palmettes below, and on each of the four faces above, between the volutes, a griffin's head, on either side of which are wings attached to rosettes. The bronzes found are: (1) a small Hermaphrodite (0.50 m. high) similar to one found in 1907, originally used as a lamp; (2) bronze decorations for furniture, consisting of the heads of horses, mules, and ducks,

busts of Artemis, etc.; (3) a bust of Athena (0.18 m. high) probably used for the same purpose; (4) a dancing Eros (0.14 m. high); (5) the grotesque figure of an actor (0.10 m. high). In marble the most remarkable object was (1) the bust of a woman (0.70 m. high) with regular features (Fig. 7). There were also found: (2) a much mutilated statuette of Artemis (0.50 m. high); (3) several statuettes of seated children; (4) two heads of laughing satyrs; (5) two female heads much damaged; (6) the torso of a man (0.95 m. high); (7) a male bust; (8) a relief (0.56 m. long, and 0.35 m. high) representing Asclepius and Hygieia at a banquet with worshippers approaching. Two large slabs contain much injured inscriptions. One is in honor of Μεγιστήρ [Μέγιστηρ] κανος Χαλλειδης, known to have lived before 322 B.C.; and the other records in 91 lines gifts made by Athenians to Ammon in the archonship of Chariclides (363-362 B.C.). Three ingots of lead are inscribed M PLANI L · F (figure of a dolphin) RVSSINI; a fourth has L · PLANI · L · F · RVSSINI followed by an anchor; a fifth has CN · ATELLA F · MENE. The ship must have sailed from Piraeus, but its destination is not known. A terra-cotta lamp which belonged to the crew dates the vessel in the first century B.C.

UNITED STATES

BOSTON. — Acquisitions of the Museum of Fine Arts. — The most important acquisition of the Boston Museum of Fine Arts is (1) a three-



FIGURE 8.—RELIEF IN BOSTON, FRONT.

sided relief corresponding closely to the "Ludovisi throne" in shape, size, and style. Its width is 1.60 m. at the bottom, and its height 0.92 m. In the centre (Fig. 8) is a nude youth holding a pair of scales and in the pans of the scales are small nude youths holding on by a rope above their heads. On either side are draped and veiled women. Below, delicate scrolls rise from the centre toward the two corners, crowned with a somewhat flaring

ornament on the corner itself. Below these at the left is a fish, and at the right a pomegranate. On the two wings (Figs. 9 and 10) the scrolls with the fish and pomegranate are repeated. On the right wing a nude youth is seated on a cushion playing a lyre; on the left wing sits a realistic old woman with her knees drawn up toward her body, holding in her right hand a curved object which has been chiselled away.



FIGURE 9.—RELIEF IN BOSTON, RIGHT WING.

Minoan pottery. (5) Part of a bowl of Naukratis white lecythus inscribed *Φαιδρος καλός*. (6) An Athenian white lecythus adorned with a youth in a red chiton holding out an alabaster to a girl. (8) Two sard intaglios, both of the Graeco-Roman period. (9) Twenty-three Greek coins, one gold, one electrum, and the rest silver. (*Museum of Fine Arts, Boston. Thirty-fourth Annual Report, 1910*, pp. 55-57; also *B. Mus. F. A. VIII*, 1910, pp. 17-18; 3 figs.)

NEW YORK.—Acquisitions of the Metropolitan Museum.—During the past year the Metropolitan Museum has acquired ten Greek and Roman sculptures. Besides the statue of the old market woman (*A.J.A. XIV*, pp. 128, 129) the more important pieces are a crouching lion, a Greek work of the fifth century; part of a crouching Venus of the same size as the one in the Louvre and of better workmanship though more broken; a life-size statue of a

ten vases of gray and reddish limestone, including a ceremonial lamp and "blossom bowl" with cover, of the Early Minoan period from Crete. (3) An archaic Greek statuette 0.088 m. high, representing a centaur with human forelegs. (4) A number of vases and vase fragments from Crete, not yet all put together, illustrating most of the nine periods of



FIGURE 10.—RELIEF IN BOSTON, LEFT WING.

seated philosopher, signed by an otherwise unknown sculptor Zeuxis; the head of a girl, Greek work of the fourth century. Nineteen bronzes were added to the collections, counting as one item fifteen small animals representing a Roman farmyard group (Fig. 11). Among the other bronzes are three fine Etruscan mirrors representing Peleus and Thetis, Odysseus and Circe, and Bellerophon and the Chimaera. Thirty-one Greek vases including a signed cylix of Hiero, a cylix in the style of Epictetus, a cylix inscribed $\delta\pi\alpha\varsigma\kappa\alpha\lambda\varsigma$ $\mathbf{\mathcal{E}\pi\acute{e}l\acute{e}(\iota)os}$, and a fragmentary crater in the style of Amasis II were acquired. Nineteen late Greek vases which came from a single grave may have constituted a dinner set. The museum also received seven terra-cotta figurines, the head of a youthful satyr 10.7 cm. high, and a terra-cotta votive plaque of the fifth century, on which is a stamped design representing two standing women facing each other. One



FIGURE 11.—FARMYARD GROUP, ROMAN.

is playing the flute, and the other reading from a roll, while between them stands a heron. Another purchase was a Roman stucco relief, apparently representing a captive kneeling before a standing figure. (B. *Metr. Mus.* V, 1910, p. 21, fig.; p. 56; pp. 95-96, 9 figs.; pp. 143-146, 9 figs.)

PHILADELPHIA. — Recent Acquisitions of the University Museum. — The Free Museum of Science and Art of the University of Pennsylvania has recently acquired one of the slabs of a large Roman relief. It is divided into two panels by a vertical partition. In the right-hand panel is a standing soldier in full front leaning on his spear; in the left hand panel two soldiers, one of whom is an officer, are marching to the left. The face of the man in front and part of his body were on another block. All the figures are life size. On the back of the slab was an inscription in several lines, which have been chiselled out. Another acquisition is a heavy bronze goose neck which formed the stern ornament of a Roman ship.

EARLY CHRISTIAN, BYZANTINE, MEDIAEVAL, AND RENAISSANCE ART

GENERAL AND MISCELLANEOUS

SALAH, MESOPOTAMIA.—A Prototype for Romanesque Architecture.—J. STRZYGOWSKI publishes in *Mh. f. Kunstw.* III, 1910, pp.

1-4, views and plans of the church Mar-Jakub at Salah, whose foundation reaches into the fifth century. The plan is peculiar in that the apse and its accompanying rooms, and the narthex as well, lie on the long side, not on the narrow end, of the building. The various portions of the church are barrel-vaulted. The same plan and vaulting is repeated in the apse and transept of the church of Santullano in Oviedo in Spain.

BETTIR. — **A Byzantine Mosaic.** — In *R. Bibl.* VII, 1910, pp. 254-261 (2 pls.; fig.), H. VINCENT reports a mosaic pavement of the Byzantine period recently discovered a little to the west of the railway station of Bettir on the road between Jaffa and Jerusalem. The floor contains Greek inscriptions set in mosaic containing Christian dedicatory inscriptions. The purpose of the building to which this pavement belonged has not yet been discovered.

MISTRA. — **Work of Restoration in 1908.** — In *Практика* for 1908, pp. 118-144 (7 figs.), A. ADAMANTIOU reports upon the work of restoring and preserving the Byzantine buildings and paintings at Mistra in 1908. The most important work was done on the churches of Hagios Joannes, Hagios Theodoros, the Evangelistra, and the Appentiko.

STRENGUAES. — **Exposition of Religious Art.** — An exposition was held at Strenguaes near Stockholm from June to August, 1910, by the art societies of the provinces of Soedermanland and Nericke, to illustrate the history of art in Sweden from the twelfth to the nineteenth century. (*Chron. Arts*, 1910, p. 122.)

ITALY

RECENT DISCOVERIES. — Several discoveries are reported from Italy. In the church of S. Francesco at Lucca—for many years a barracks, but now being restored—a Madonna and Child of the fourteenth century, and a lunette of the fifteenth, have come to light; in the church of S. Dorato at Castelleone, near Diruta, Count Umberto Gnoli has discovered three frescoes by Matteo da Gualdo; at Fabriano a thirteenth-century fresco has been found in the desecrated church of S. Francesco; and in the Benedictine church of Pontida, near Bergamo, a sixteenth-century fresco of the Adoration of the Shepherds, with saints, has been brought to light, hidden behind one of the presses in the sacristy. (*Athen.* Apr. 9, 1910, p. 438.)

UNKNOWN UMBRIAN PICTURES. — E. CALZINI discusses in *L'Arte*, XIII, 1910, pp. 67-70, two unknown pictures of great interest. One is preserved in the parish church of Cancelli in the Commune of Fabriano, and represents the Madonna enthroned with saints. It is signed **FRAT. FABIAN. VRBINAS. | ORD. PRAEDICATOR | PINGEBAT 1533.** The frame is decorated, by another hand, with fifteen little scenes of the "Mystery of the Rosary." The picture is of importance as demonstrating the survival in the sixteenth century of the characteristics stamped on Urbinate painting by Giovanni Santi, the father of Raphael. A fresco representing the Madonna, by Giovanni Santi himself, formerly among the loaned pieces in the *Istituto delle belle Arti* in Urbino, was sold two years ago by its owner to a Florence antiquary for 200 lire.

COPIES OF MANTEGNA'S ST. CHRISTOPHER FRESCOES. — In view of the ruined condition of the frescoes representing the "Martyr-

dom of St. Christopher" in the Eremitani at Padua, the publication by W. GRÄFF, in *Mh. f. Kunste*. III, 1910, pp. 107-109, of two good copies of these frescoes is of interest. One copy is an oil painting on paper in the Palma gallery, done about 1500, the other is in the possession of Mme: André-Jacquemart at Paris. Both were known before, but no reproduction of the Parma example had ever been published.

AQUILEJA. — **Early Christian Mosaic.** — Repairs to the basilica of Aquileja have uncovered an early mosaic floor about one metre below the present (eleventh century) pavement. The decoration consists chiefly of a series of portraits (donors), land and water scenes, a Jonah series, and a Good Shepherd. The inscription found on the mosaic reads as follows: * | THEODORE · FELI[X] | [A]DIVVANTE · DEO | OMNIPO-TENTE · ET | PER · MVNVS · CAELITVS · TIBI | [TRA] DITVM · OMNIA | [B]AEATE · FECISTI · ET | GLORIOSE · DEDICAS[TI]. A Bishop Theodore of Aquileja took part in the council of Arles in 314, a date not inconsistent with the appearance of the mosaic. (J. P. KIRSCH, *Röm. Quart.* 1910, pp. 117-119.)

BOLOGNA. — **A Bust by Nicolo dell' Arca.** — A terra-cotta bust of St. Dominic, standing at one side of the door of the sacristy of the church of S. Domenico, has been traditionally assigned to Alfonso Lombardi. Documentary evidence shows that the bust is the work of Nicolo dell' Arca. (G. P. *Rivista d' Arte*, 1909, pp. 303-304.)

CASCIA. — **Unknown Works of Art.** — M. Rocchi gives, in *L' Arte*, XIII, 1910, pp. 150-151, an account of unedited works existing in Cascia, near Spoleto, or its vicinity. These include a fifteenth-century Madonna in wood and a group of Tobias and the Archangel, polychrome in wood (Fig. 12), Umbrian workmanship of about 1400, both in a small thirteenth-century church at Cascia; a fresco in the choir of the monastery of S. Antonio, signed by Nicola da Siena; a tempera panel representing the Madonna, by an Umbrian quattrocentist, at Mantignano; and a Romanesque silver cross at S. Giorgio.

CESENA. — **An Unknown Work by Lorenzo Bregno.** — By the aid of documents drawn from the *archivio* of Cesena, C. GRIGIONI proves that the sculptor of the altar in the cathedral of Cesena, with figures of Saints Christopher, Leonard, and Eustace (no longer in their original position, but



FIGURE 12.—GROUP IN PAINTED WOOD AT CASCIA.

dispersed about the church), was Lorenzo Bregno. (*L'Arte*, XIII, 1910, pp. 42-48.)

FLORENCE. — **Unedited Drawings in the Uffizi.** — A number of unedited or little-known drawings in the Uffizi are published in *Boll. Arte*, IV, 1910, pp. 147-156, by G. BERNARDINI. They are: a Woman playing the Clavichord by Paolo Caliari; an Anchorite, attributed to Bartolomeo Montagna, but to be assigned to Vincenzo Catena; a St. Sebastian, which should be given to Bartolomeo, instead of Benedetto, Montagna; an Angel by Filippino Lippi; a Last Judgment by Cosimo Rosselli; a Madonna by Sogliani; two sketches by the same artist for his Adoration of the Magi in S. Domenico at Fiesole, the one a general composition, the other a study for one of the kneeling figures; another sketch by Sogliani, representing scenes from the Passion; and a group of soldiers by some imitator of Antonio del Pollaiuolo of the sixteenth century.

GENOA. — **A New Van Dyck.** — In *Rass. d'Arte*, X, 1910, p. 58, F. MALAGUZZI VALERI publishes a Madonna by Van Dyck, which he attributes to the period 1622-29. It is in private possession in Genoa.

MILAN. — **A New Jacopo Bellini.** — A recent acquisition of the Poldi-Pezzoli museum is a Madonna which is evidently one of the few existing paintings of Jacopo Bellini. (G. COGNOLA, *Rass. d'Arte*, X, 1910, pp. 65-66.)

New Drawings in the Ambrosiana. — C. VICENZI publishes in *Rass. d'Arte*, X, 1910, pp. 6-11, a series of drawings recently acquired by the Ambrosiana, evidently copies by some sculptor from reliefs and statues at Rome. One of the drawings, representing the equestrian statue of Marcus Aurelius, shows evidence of having been made anterior to the repairs of 1466. Vicenzi finds it doubtful if the drawings are by Pisanello, to whom they have been assigned.

NAPLES. — **A Fifteenth-century View of Naples.** — A document of first-rate historical and topographical importance is published in *Boll. Arte*, IV, 1910, pp. 125-143, by V. SPINAZZOLA, in the shape of a representation of the naval triumph of Ferrante of Aragon, after his victory over John of Anjou at the battle of Ischia, July 6, 1465. The view represents the city seen from the bay, and is particularly interesting for its careful reproduction of the standards borne by the victorious and conquered ships, and the rendering of the Castello Nuovo and the Castel dell'Ovo. It is possibly by the same unknown artist who painted the Execution of Savonarola, of which copies exist in the Museo di San Marco and the Palazzo Corsini.

NORCIA. — **New Paintings.** — G. SORDINI, in *Boll. Arte*, IV, 1910, pp. 17-28, discusses the mural paintings of a country church near Norcia, called S. Salvatore, dated 1464 and signed with the names of Giovanni Sparapane and his son Antonio. Other pictures in the church bear the dates 1466, 1470, and 1474, but the author was not able to determine whether they are also by these painters. A polyptych in the same church, representing the Virgin and Saints, bears the signature of Antonio Sparapane alone. The article closes with a résumé of the information available upon these Norcian painters.

PAVIA. — **Bramante's Paintings in the Certosa.** — The four groups of saints flanking the apses which terminate the transept of the Certosa of Pavia have long defied certain attribution. G. ZAPPA finds in them unmis-

takable evidence of the authorship of Bramante, to whom he also assigns the major part of the formal decoration of the walls of the transept, dated 1493. If this attribution be accepted, there are added to Bramante's *œuvre* the only well-preserved and securely dated pictures by him known. (*L'Arte*, XIII, 1910, pp. 161-176.)

ROME. — **Recent Discoveries.** — Explorations in some of the churches of Rome have led to important results. Under the church of SS. Giovanni e Paolo on the Caelian Hill a painting, representing a mythological scene in a harbor, was found in a nymphaeum. Under S. Crisogono remains of the house of the saint were found, and considerable portions of the earlier church (see *A.J.A.* XIII, p. 111), which was built into it. (*Nation*, April 14, 1910, p. 387.)

S. COLOMBANO AL LAMBRO. — **Works by Amadeo.** — F. MLAGUZZI VALERI publishes in *Rass. d'Arte*, X, 1910, pp. 14-18, a document drawn from the *Archivio Religioso* and dated 1505, which shows that the present aspect of the *Castello* in the village of S. Colombano al Lambro, near Lodi, is due to Giovanni Antonio Amadeo. He inclines also to attribute to the same architect the small octagonal church of S. Rocco in the same village.

VERONA. — **Titian's Portrait of Fracastoro.** — Both Vasari and Ridolfi mention a portrait of Geronimo Fracastoro by Titian. This has been identified by E. SCHAEFFER with the portrait in the Museo Civico at Verona, which Berenson believed was the likeness of King Ferdinand. The identity of the sitter with Fracastoro is established by comparison with other existing portraits of the poet. (*Jb. Preuss. Kunsts.* 1910, pp. 130-138.)

SPAIN

MADRID. — **Spanish Copies of Schongauer.** — H. KEHRER publishes in *Mh. f. Kunstu.* III, 1910, pp. 157-158, three pictures in the Prado, an Annunciation, an Adoration of the Magi, and a Death of Mary, which were clearly done by a Castilian painter after the corresponding prints of Schongauer.

FRANCE

PARIS. — **A Twelfth-century Head of Christ.** — In *Mon. Piot*, XVI, 1909, pp. 137-146 (pl.; 4 figs.), P. VITRY publishes a wooden head of Christ, slightly larger than life size, in the collection of Jacques Doucet. It dates from the twelfth century, and may be compared with the twelfth-century wooden figures of Christ in the Louvre and in the museum at Cluny.

Drawings from the Credo of Joinville. — In *Mon. Piot*, XVI, 1909, pp. 61-69 (4 pls.), H.-F. DELABORDE shows that a series of drawings recently found by Philippe Lauver among the papers of Montfaucon in the Bibliothèque Nationale illustrate the *Credo* of Joinville. They date from the end of the thirteenth century, and were probably designs for a series of mural paintings. The drawings are described by P. LAUER, *ibid.* pp. 70-84.

An Acquisition of the Louvre. — The Louvre has recently acquired from the Gay collection an ivory plaque of the tenth century, representing the Miracle of the Loaves and Fishes, and belonging to the "Trivulzio" series. (J. J. MARQUET DE VASSELOT, *B. Soc. Ant. Fr.* 1909, pp. 259-261.)

BELGIUM

BRUSSELS. — **Acquisitions of the Museum.** — The museum at Brussels has recently acquired, through the *Société des Amis des Musées*, three pictures of importance: a Temptation of St. Anthony, dated 1511 and signed by its author, Lucas van Leyden; an Adoration of the Magi, by Pieter Breughel the Elder; and an Apollo and Diana, by Lucas Cranach the Elder. All three came from the Fétes sale. (H. HYMANS, *Chron. Arts*, 1910, p. 107.)

GERMANY

BERLIN. — **A Portrait of Narses of Persia.** — In *Jb. Preuss. Kunsts.* 1910, pp. 73-78, F. SARRE publishes a silver figure of a Persian king in the act of launching a spear, designed as an appliquéd ornament. By comparison with other works of Sassanid origin, he arrives at the conclusion that the figure dates from the period of florescence of Sassanid art—the third century—and represents King Narses (294-303 A.D.), the sixth prince of the Sassanid dynasty.

BONN. — **The Gallery.** — By the gift of a large part of the Wesendonck collection, now in Berlin, the city of Bonn becomes the possessor of a rich museum of paintings for which a special building has been built. The number of pictures exhibited (including former possessions) is 320. Nearly all schools are represented. There are works by Italian painters from Lorenzetti to Sassoferato, by the Spaniards Zurbaran, J. B. del Marzo, and Velasquez, specimens of early German schools, some pictures by Reynolds, Poussin, and Greuze, and a rich series of Flemish and Dutch paintings. (S. R., *R. Arch.* XIV, 1909, p. 469, from *Frankfurter Zeitung*, October 29, 1909.)

BREMEN. — **A Cranach Portrait.** — G. PAULI publishes in *Mh. f. Kunstu.* III, 1910, p. 25, a male portrait by Cranach the Elder, belonging to Herr H. Albers in London, but now lent to the Bremer Kunsthalle. The portrait is a half-length figure of a burgher, in furred cap and cloak, and bears upon its back two sets of arms and the date 1514. The painting upon the back is doubtless by a pupil.

DARMSTADT. — **An Illuminated Manuscript.** — Ms. 69 in the Hofbibliothek at Darmstadt contains thirty-one miniatures of the sixteenth century, which bear unmistakable evidence of common authorship with certain of the illustrations in the *Breviarium Grimani* in Venice. There is also reason to think that the original possessor of the manuscript was the Archduchess Margaret, daughter of Maximilian I. She is known to have ordered breviaries from a certain Horebaut, whose surname at least appears inscribed in cryptic fashion on the mantle of Moses in the "Crossing of the Red Sea." Horebaut's daughter Susanna appears to have signed another of the miniatures. The hands of three other artists, unknown as yet, may be detected by differences in style. (C. HABICHT, *Rep. f. K.* 1910, pp. 22-35.)

GIESSEN. — **A Frankish Grave.** — In *Röm.-Germ. Kb.* III, 1910, pp. 4-6, KRAMER reports upon the unearthing of a Frankish grave, which yielded numerous beads of various stones and colored glass, pottery, and other objects.

GREAT BRITAIN

CHESTERFIELD. — **A New Perugino.** — F. M. PERKINS announces the existence in the collection of Sir George Sittwell, of Remshaw Hall, Chesterfield, of a Virgin and Two Saints adoring the Child, by Perugino. This picture was practically unknown. It belongs to a period somewhat later than 1500. (*Rass. d' Arte*, X, 1910, p. 18.)

HAMPTON COURT. — **A Picture by Van Hemessen.** — A St. Jerome in Hampton Court Palace is signed: **IOANNES DE HEMESSEN PINGEBAT 1545.** The painting came from the collection of Charles I, and seems to be the one formerly in the gallery of the Duke of Mantua and identical with that described in the catalogue of the collection of James II as "No. 822, *St. Jerome sitting with a lion by him*, by Quentin Matsys." (L. CUST, *Burl. Mag.* XVII, 1910, pp. 120-123.)

LONDON. — **The "Grafton Galleries" Exhibition.** — The "Grafton Galleries" loan exhibition brought out a number of little-known pictures, among them an Adoration of the Magi, a tondo by Filippo Lippi, interesting for the evident influence of Masolino; a St. Jerome, signed *Johannes Bellinus*, but evidently by Basaiti; and an Adoration of the Holy Child, by Carpaccio, lent by Lord Berwick. Among the better known pictures were Titian's Portrait of a Man, from the collection of Hon. E. Wood at Temple Newsam; the doubtful Titian in the collection of Sir Hugh Lane (a male portrait); the Giorgionesque Adulteress of Glasgow, and Sebastiano del Piombo's portrait of Cardinal Ferry Carondelet, from the Duke of Grafton's gallery, besides interesting works by Tiepolo, El Greco, the *Maitre des Moulins*, and a Mariée at the Sepulchre, by Jan Van Eyck. (ROGER FRY, *Rass. d' Arte*, X, 1910, pp. 35-39.)

The Mond Collection. — By the death of Ludwig Mond, the National Gallery becomes the possessor of an important series of paintings which formed part of his collection, among them the following: Two Saints, by Cima da Conegliano; a Madonna, by Giovanni Bellini; a Virgin Enthroned, by Gentile Bellini; a Flora, by Palma; two figures of Apostles, by Crivelli; a Madonna, by Giambono; another, a late work of Titian's, formerly in the Dudley collection; a "Life of S. Zanobi," by Botticelli; the "Hortus inclusus" of Mantegna; heads of angels by Correggio; a Madonna, by Suivi; an Adoration of the Magi, by Dosso; a Madonna and Angels, by Francia; a St. Jerome, by Sodoma; a Crucifixion, by Raphael (the Dudley Raphael); and many other notable pictures, chiefly Italian. (G. C., *Rass. d' Arte*, X, 1910, p. iv.)

Persian Copies after Gentile Bellini. — F. R. MARTIN publishes in *Burl. Mag.* XVII, 1910, pp. 5-7, a number of very interesting miniatures in his collection. The first is a copy by the Persian artist Behzad, who worked in the early sixteenth century, of the miniature portrait by Gentile Bellini, which he published some time ago. The second is a later copy of the same. Another miniature is the portrait of some evidently royal personage, possibly Bayard or Selim I, or one of the sons of Selim painted by Bellini, for the painting is clearly a copy of a European painting by some artist in Behzad's school. Dr. Martin also reproduces two small drawings of a gazelle and a hare which he attributes to Gentile, and on the basis of the resemblance of the gazelle to that represented in the "Reception of a

Venetian Ambassador at the Court of the Kaliph at Cairo," in the Louvre, he claims the authorship of the latter picture for the *bottega* of Gentile Bellini.

A Medal by Francesco di Giorgio.—G. F. HILL discusses in *Burl. Mag.* XVII, pp. 142-146, a medal in the possession of Mr. Max Rosenheim, which he attributes to Francesco di Giorgio. The obverse displays a highly individualized portrait of Federigo di Urbino, and the reverse a group representing a horseman slaying a lion-like monster. This attribution is of far-reaching importance, inasmuch as the style of the medal is that of other more important and controversial works, such as the relief in the Carmine at Venice, which was originally dedicated by Federigo to the Compagnia della S. Croce at Urbino.

Italian Pictures in the Salting Bequest.—CLAUDE PHILLIPS discusses, in *Burl. Mag.* XVII, 1910, pp. 9-22, the Italian pictures acquired by the National Gallery through the Salting bequest. The most interesting of the series are: a David and Jonathan, by Cima da Conegliano; a Pietà, by Francia; a Narcissus, by Boltraffio; a Virgin and Child, by Fiorenzo di Lorenzo; another by Mainardi; and a male portrait by Alvise Vivarini.

OXFORD.—New Drawings by Brauneven.—ROGER FRY publishes in *Burl. Mag.* XVII, 1910, pp. 50-51, a sheet of drawings by André Brauneven, whose sketch-book he recently discovered in the collection of Mr. J. P. Morgan. (See *A.J.A.* XI, 1907, p. 126, and XIII, 1909, p. 534.)

AFRICA

CARTHAGE.—A New Fragment of the Relief of the Virgin from Damous el-Karita.—In *B. Soc. Ant. Fr.* 1909, pp. 339-340, A. HÉRON DE VILLEFOSSE announces the discovery by Father Delattre of the head of the second figure behind the Virgin in the relief from the basilica at Damous el-Karita found by him twenty-five years ago.

Byzantine Lead Seals.—In *B. Soc. Ant. Fr.* 1909, pp. 339, 342-343, 387-388, and 392-393, A. HÉRON DE VILLEFOSSE and P. MONCEAUX publish eight Byzantine lead seals recently found at Carthage by Father Delattre.

HENCHIR EL-OGLA.—A Donatist Church.—The commandant Guénin has recently discovered at Henchir El-Oglia, near Tebessa, the ruins of a basilica, on the keystone of whose triumphal arch appears the following inscription: *Sanctorum se|des domu Domi|ni | (vines and chrism) qui pure petit acipit* (sic). *Sanctorum* does not refer to martyrs, but is the appellation given themselves by the Donatists, to whom this church evidently belonged. *Qui pure petit* is also a Donatist phrase referring to the exclusive purity which they claimed. (P. MONCEAUX, *B. Soc. Ant. Fr.* 1909, pp. 276-277.)

HENCHIR-NAJA.—Christian Terra-cottas.—In *B. Arch. C. T.* 1909, pp. xvii-xxi, A. MERLIN describes a series of terra-cotta plaques with reliefs, intended for the revetment of the interior of basilicas of the fifth and sixth centuries, recently discovered by M. DUBIEZ. Sixteen are described, of which the most interesting are those representing Adam and Eve, Daniel, and St. Theodore.

UNITED STATES

BOSTON. — **A Rubens Portrait.** — The Boston Museum of Fine Arts has on exhibition as a loan a superb double portrait painted by Rubens when his powers had reached their full maturity. The panel was coated with plaster, which the painter made use of to affect the tone of the darks; only the lights were loaded. (*B. Mus. F. A.* VIII, 1910, p. 5; fig.)

AMERICAN ARCHAEOLOGY

GUATEMALA. — **Archaeological Discoveries.** — In *Z. Ethn.* XLI, 1909, pp. 862-874, E. P. DIESELDORF classifies archaeological finds of his in Alta Verapaz, northern Guatemala, which cast light on the tribal relations of the ancient inhabitants of Yucatan, Guatemala, and Honduras. The vases of the first class—the oldest—have rude faces in relief. In the second group, that of the Lacandon Indians, the face seems to be that of the god of nature. These vases have a hole in the bottom and two holes in the sides. At the end of the year the vases were regarded as dead, and were, therefore, hidden away under rocks and in trees or put away in their chief temple. Group 3, that of the Kekchi Indians, is characterized by larger and hollow idols, representing undoubtedly the sun-god. These finds show striking resemblances to the *Dresdensis* and *Peresianus* Maya manuscripts, while those of group 4, the Chol or Acala Indians, resemble the *Madrid* manuscript. The latter's idols are only half as large as those of the Kekchi and are not so roundly modelled. Many of the figures hold fans and some have animal heads. In these two groups the idols often served as a kind of flute. Group 5, the Pokomchi Indians, is distinguished by enamelled vases as well as by barbed arrow heads. In a sixth class the author places certain objects that seem to have been scattered in various districts by trade.